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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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SUEZ CANAL THIRTY YEARS OLD.

The Suez canal undertaking can now look back upon thirty complete working years, that waterway having been opened for traffic with much ceremony by Ismael Pasha, the then Khedive, in the month of November, 1869, says the Liverpool Journal of Commerce. The compatriots of Ferdinand de Lesseps, the engineer of the scheme, have not been unmindful of his memory, and a colossal statue of the great canalmaker was in November last erected on the western shore of Port Said, and now stands in full view of every vessel passing in either direction. The opposition which Lesseps' plans met with in England, and the weak and lukewarm support he received from the French government, not to mention the suspicion and distrust shown by the Sublime Porte, were enough to deter a less strong minded man than Lesseps from the task, but Lesseps remained true to his ideal, with the result that we have seen Lord Palmereton's misgivings as to the effect of the cutting of the canal upon British interests and the integrity of Turkey all proved to be baseless, and we now find ourselves the largest shareholder in the enterprise as well as its best customer. But the political difficulties were not the only obstacles in the way of connecting the Mediterranean with the Red Sea. There were physical difficulties also. Long before Lesseps' time scientific men declared there was a great difference in the sea levels of the Mediterranean and the Red Sea, and M. Lepere, an engineer sent to Egypt by Napoleon I to study the question, reported that the difference between the levels was so great as to render the making of a canal impossible. Forty years later, however, a series of experiments established the fact that the water level at Suez and Port Said was the same, and that it was quite feasible to cut a waterway between these two places without the necessity of making locks. Another difficulty (real to a certain extent, this one) was the risk of silting up by the sand and mud washed down into the sea by the Nile and invarably carried in an easterly direction by the tide, but this has been overcome by energetic dredging. It was further predicted that collisions would be constantly occurring, but this is very far from being the case. On the whole, it must be said that the managers of the canal have been quite equal to the task. Since the year 1876, when Great Britain purchased a number of shares in the company from the Khedive (then in financial difficulties) for the sum of £4,000,000 sterling (now worth about £26,500,000), giving to Great Britan as it did, a weighty influence in the management, many improvements have been carried out. The sidings where the largest vessels can pass each other, have been increased by nine, and not only that, but the width has been so much increased throughout the whole length of the fairway that vessels for the most part can pass each other without bringing up in the sidings, so that cases where waiting is a necessity are the exception. Whereas, at the beginning, the passage through the canal generally took forty-eight hours, since the introduction of the electric light this has been reduced to seventeen hours, and is now never more than twenty-four hours. There is one thing, however, which will probably have to be attended to in the near future, and that is the adequate deepening of the canal bed. The tonnage of steamers have increased so much in recent years that fully-laden vessels often draw as much as 27 or even 30 feet of water, and it is possible that the necessity will soon be made manifest for providing a safe and unhindered passage through the canal for ships of this draught."

LEGISLATORS WILL TOUR.

At a meeting of the Lake Carriers' Association, held at the office of Capt. James Corrigan, Cleveland, on Tuesday, Messrs. W. C. Farrington of Buffalo, H. A. Hawgood of Cleveland, W. C. Colton of Toledo, Capt. J. S. Dunham of Chicago, David Vance of Milwaukee, William Livingstone of Detroit, A. B. Wolvin of Duluth and C. H. Keep of Buffalo were appointed a committee to make arangements for a trip up the lakes for the members of the House Committee on Rivers and Harbors and the Senate Committee on Commerce. The party will meet at Buffalo early in August and all the ports on the south shore of Lake Erie will be visited. A day will be spent at the principal ports, including Erie, Ashtabula, Toledo and Cleveland. It is expected that the party will reach Cleveland about Aug. 8 and continue their tour to the head of the lakes. An effort will be made to get the revenue cutter Fessenden for the trip.

SUEZ CANAL STATISTICS.

Interesting statistics showing the number, tonnage and nationality of vessels passing through the Suez canal in 1897, 1898 and 1889 have just been published. Great Britain naturally heads the list, and then come Germany, France and the Netherlands in the order named. As these are the most important customers of the canal company we give their particulars in full :

	1897.		1898.		1899.	
	Ships	Gross Tons	Ships	Gross Tons	Ships	Gross Tons
England	1.905	7,389,236	2,295	8 691,c92	2,310	9,046,031
Germany	325	1,194,106	356	1,353,161	387	1,492,637
France	202	807,995	221	891,611	226	940,124
Netherlands	206	532,272	193	526,478	206	583,010

Notable, however, is the advance made by Japan, whose ships occupy the fifth place, with a number of 65, and a tonnage of 321,127, as compared with 36 ships, and 165,424 tons in 1897; and 46 ships, with 261,601 tons in 1898. The total number of ships which used the canal in 1899 was 3,607 with a gross tonnage of 13,815,982. This compares with 2,986 ships, with 11,123,395 tons in 1897; and 3,503 ships, with 12,962,622 tons in 1898.

HYDROGRAPHIC OFFICE NOTES.

LAKE MICHIGAN.—Drifting wreck off Sheboygan.—Information, dated June 1, 1900, has been received from the Goodrich Transportation Co., Manitowoc, Wisconsin, that the wreck of the scow Siver Lake is adrift in Lake Michigan about 7 (8) miles to the eastward of Sheboygan and is a dangerous menace to navigation. Mariners are cautioned accordingly.

LAKE MICHIGAN—Chicago—Alteration in lights on Masonic Temple.—Notice is given that the lights on the dome of the Masonic Temple at Chicago have been relighted for the season and are the same as last year, with an additional circnlar row of lights (16 in number) 6 feet above the position of the time ball.

THE STATUS OF BRITISH NAVAL ENGINEERS.

The closing business meeting of the sixteenth session of North-East Coast Institution of Engineers and Shipbuilders was held on 18th May, at Newcastle-on-Tyne.

Mr. Dugdale resumed the discussion on Mr. D. B. Morison's paper on "The British Naval Engineer." He said it had been asked, "Why has the Admiralty not taken up this matter and put it right?" They were further asked if it was because of a disinclination to spend more money that the Admiralty had not moved in the matter. He believed that the reason was simply that neither the Admiralty nor those who had referred to the matter in the House of Commons fully realized its importance or the necessity of a radical change in its regime. At the commencement of the century the handling of a battleship was distinctly an art. Now it was a science. They now found every branch of engineering brought into requisition. In the words of Mr. Morison, the modern battleship was the embodiment of engineering science. The engineer officer must be a man of scientific attainments, and must be conversant with all the various branches of engineering. He must have a college training. The Admiralty did not realise that, although it required higher intellectual attainments in the engineer than in the executive officer, it did not offer any inducement to men to become engineers. One great difficulty that they had to contend with was the innate conservatism of the Admiralty. The Admiralty opposed the removal of masts and yards from steam vessels, it opposed armour-clads, and it opposed the increases in the fleet. It was their duty to point out to those who represented them in Parliament the absolute necessity of a radical change. The recent Admiralty concessions were unsatisfactory, as the real question had not been touched. Naval efficiency would never be attained until they had but one class in the service. The American naval system approaches efficiency more nearly than any other. All working officers should be executive and military. There should be only the one class in the service—the fighting workers or the working fighters in the ship. The engineer did not want to be captain. The engineer, being such an important factor in maintaining the efficiency of the ship, and having such a large staff under his control, should have the authority and duty of maintaining discipline, and, inasmuch as he had to perform executive duties and was essentially a fighting worker, his rank should be executive and military in the same manner as the engineer in the army.

On the motion of the chairman, duly seconded, the following proposals were agreed to : "1. That in view of the national importance of an investigation and discussion by engineers of the subject matter of Mr. D. B. Morison's paper, the secretary be instructed to communicate with the various Marine Engineering Institutions throughout the Kingdom, enclosing a copy of the paper and discussion, and suggest that each should hold a meeting for the discussion of the subject; that all such discussion should be incorporated in one volume, such volume to form part of the Transactions of each Institution. 2. That a small committee be formed by each Institution, the whole to be embodied in one general committee which will draw up a report for submission to the Government as representing the opinions and recommendations of the marine engineers of the United Kingdom with reference to the engineering personnel in H. M. Navy. 3. That the following gentlemen be elected to form the committee to represent this Institution : Sir B. C. Browne, Sir Thomas Richardson, M. P., Mr. D. B. Morison, Mr. H. Withy, Mr. T. Westgarth, and Prof. R. L. Weighton."

KNAPP'S roller boat is still navigating its inventor's brain, if no other element, and he is reported to be about to build a new boat for Montreal capitalists, who are interested.

AROUND THE LAKES

BUFFALO.

Special Correspondence to The Marine Record.

President Keefe and Secretary Barter, of the International Longshoremen's Union, are here trying to settle the freight handlers' labor difficulty.

The new addition to the Union Iron Works ore dock collapsed on Saturday, and a couple of thousand tons of ore piled into the creek. Dredging is supposed to have undermined the piles.

An offer of $2 per 1,000 feet for lumber from Duluth to Tonawanda sent the steamer John Pringle with consorts Harrison, Unadilla, and Sweetheart into the coal trade. They took cargoes from here for Waukegan. One dollar more is asked on lumber from the head of the lakes.

William H. Barnes, Frank J. Firth, S. F. Houston, John P. Green and S. M. Prevost were elected to the directorate of the Erie & Western Transportation Company at the recent meeting of the stockholders of that line. The Erie & Western, or Anchor line, as it is commonly known on the lakes, is now practically controlled by the Pennsylvania by stockholdings, and the road is represented on the new board by first vice-president Green and third vice-president Prevost.

The Cleveland & Buffalo Transit Co., announces that on and after June 17 it will run Sunday excursions from Buffalo to Dunkirk. This puts the full service of that line back to where it was in the middle of the season last year. One of the biggest movements of the year will be on June 16, when the C. B. line carries 2,500 excursionists from Buffalo to Dunkirk, the occasion being the meeting of the railroad branch of the Y. M. C. A. The City of Erie will be used for the trip and will carry the entire crowd at one time.

While coal rates have generally held to the old rates all week, there has been a slump in some instances to 40 cents Duluth, and 60 cents on Lake Michigan cargoes. The quoted figures, however, are still 75 cents Chicago, 70 cents Milwaukee, Green Bay or Manitowoc, and 50 cents to Lake Linden, Ashland, Hancock, Sault Ste. Marie or Duluth. There was only 36,000 tons shipped from here last week, including 3,000 tons bituminous, and Chicago took 12,000 tons of the total, with the balance muchly divided between other ports. For the season, Chicago has taken in round figures 170,000 tons and Duluth comes next with 144,000 tons. The total is 470,000 tons compared with 324,000 tons for the same period last year.

The Paliki, the first of the fleet of vessels to be brought from England by Mr. Clergue of the "Soo" for service on the lakes will be employed during the summer season in carrying ore and grain and in winter, instead of laying up in the lakes because of ice, will return to the ocean and trade there, taking out in the fall a full cargo of grain for British ports. The vessels are built so as to pass through the St. Lawrence canals. For ocean service they can be loaded to seventeen feet draft. The Paliki has just discharged a cargo here of 71,772 bushels of wheat from Fort William on a draft of 17 feet 2 inches. She belongs to the Algomah Central Steamship Co., and for the present will carry steel rails to Fort William, Ont., returning with wheat.

Mr. James Mathews, the well-known Canadian shipowner and head of the firm of James & James T. Mathews, Toronto, died last week. Mr. Mathews had only been confined to his home for the past two weeks and prior to that time was able to be about and attend to his business. For the past 50 years Mr. Mathews had been a resident of Toronto, and for twenty years was in the shipping business. He was born in Pickering, Ont., 76 years ago and during his early days was a farmer. He controlled at one time 20 vessels and at the time of his death was senior partner in the firm which owned a fleet comprising two steamers, several schooners and a number of barges. Last season, it will be remembered, two of the steam barges, Niagara and Lisgar, belonging to this firm, foundered.

The Express in showing up the purchase of the former Buffalo built and owned yacht Enquirer, says that she cost W. J. Connors $33,000, and of that sum $2,000 was simply for trimmings and finishings, and that the government purchased her through the recently appointed U. S. Judge, John R. Hazel, for $80,000, but that when she was again offered for sale no one would offer $20,000 for her, although another government department took her over at that valuation. The Enquirer had only a bunker capacity of 18 tons. The Express further states that Judge Hazel told Mr. Mahany that $15,000 of the purchase price was a rake-off for others than himself, he only getting $5,000. The Express also figures that out of a total of $2,600,000, paid by the government for pleasure yachts, $650,000 of that sum was paid out in commissions for selling them to the government, and the gross profits made by their owners over the cost price, aggregated $850,000. Evidently these are not the vessels that Mr. Frank Kirby, of Detroit, placed a valuation on for transport service and as dispatch boats.

CLEVELAND.

Special Correspondence to The Marine Record.

The Canadian passenger steamer Pittsburg will leave here June 26 on her trip to Georgian Bay. She is being fitted out at Windsor and Detroit.

The Minnesota liner, Maricopa, Capt. H. Zealand, made her first trip here for the season this week, she has been chiefly in the South Chicago trade since navigation opened.

Capt. Geo. Simpson, compass adjuster, now located at the "Soo" makes occasional trips to other ports. I was pleased to meet the pioneer "sea-clock" regulator here on Saturday last.

Competition between the Great Lakes Towing Co., and the independent or Maytham line is more than brisk at Ashtabula these times. The latter company expect to add a couple more tugs to their fleet at an early date.

C. H. Wellman, of the Wellman-Seaver Engineering Co., this city, with Mrs. Wellman has gone to Europe. Mr. Wellman is chief enginer of the company; and his departure was made the occasion of a most friendly demonstration on the part of the company's employes towards its chief engineer.

The funeral of Isaac W. Nicholas, the pioneer shipbuilder and vessel owner, who died Sunday, was held on Tuesday afternoon from his late home, No. 1314 Wilson avenue. The services were largely attended and the floral offerings were beautiful. The Buckeye Fish Co., with which Mr. Nicholas was connected, sent a wreath of roses and carnations. The pall-bearers were Capt. George Stone, Capt. James Stone, Capt. William Gerlach, Henry Steinbrenner, H. D. Coffinberry and C. E. Grover.

Hon. T. E. Burton, M. C., chairman of the House River and Harbor Committee, said a day or two ago: I was disappointed at a failure to procure comparatively small appropriations for lights maintained in Canadian territory, the expense of which has hitherto been paid by the Lake Carriers' Association, $6,000 annually; and for revenue cutter service for a more perfect supervision of navigation between Lake Superior and Lake Huron. Uuder the very strict rules which prevail in the House of Representatives these items could not be provided for there.

Although he quit sailing in 1882, Capt. George P. McKay is a good deal of sailor still, and manager of the Hanna fleets. Of his sixty-one years, Capt. McKay has given fifty-one to the lakes. "I might say I began sailing when I was six years old," he said, "for my father used to take me out during vacations; but when I was ten years of age I started in for good. I never sailed on salt water, at any time. I am as much of a fresh water sailorman as a man can be, for I was born aboard the boat Commodore Perry, near Toledo, and I got my middle name, Perry, in that way.

The old steamer Edward S. Pease is the heroine of many thrilling escapades, yet she still keeps to the fore as well as she did about thirty years ago. Her latest fiasco, or perhaps success, is as a battering ram, wherein she sunk the tug Delta and came off scathless herself. The Delta no doubt thought that she had a "soft thing" to tackle, but the Pease walked away with her twenty-two year old consort of a long boat out of this port without a scratch on her. The Pease is used to almost any old thing now, that is, if rough handling and all sorts of casualty experiences count.

It may be that the Rockefeller and Carnegie interests have come together. Mr. McGean, manager of the Bessemer (Rockefeller) Steamship Co. is neither affirming nor denying any rumors. That is to say, he is observing a discreet silence regarding what he considers his firm's business. The marine and cognate interests are not to be regaled with stories anent "the battle of the giants" pro or con. The "man on the street" can see the immense steel built floating warehouses laying idle at docks, breakwaters and other places, but it is nobody's business to speculate upon the why, wherefore or outcome. It is sufficient to know that the withdrawal of an easy 100,000 tons of floating property has stiffened the freight market all round, and, therefore, sufficient for the day are the benefits thereof. At the proper time (?) this idle fleet can be put to work; and when it does, the fag end of any old iron ore mine can be easily transported to the lower lakes.

It is understood that Col. Jared A. Smith, Corps of Engineers, U. S. A., will be transferred to San Francisco next November. Lieut. Col. Mansfield now at San Francisco, whom it is intended to send to Cleveland to succeed Col. Smith, is regarded as one of the best engineers in the corps. He was for some time stationed at Boston. Col. Mansfield gained not a little prominence in the War Department by planning the coast defense work at San Francisco. It must be said, however, that Col. Smith's several years service at Cleveland and his extensive knowledge of needs of the Great Lakes, especially fit him to remain at his present station, because it would take a considerable length of time for a new engineer to acquaint himself with the work. Furthermore, Col. Smith's recommendations of late have contemplated large improvements in the Cleveland district and it is therefore probable that his transfer at this time would be regarded with regret by those interested in lake marine affairs. Col. Smith's personal wishes in the matter have not been consulted, and are not known, but in the event he desires to retain his post in Cleveland there is little doubt but that the influence of Senator Hanna, Congressman Burton and many others would be used to that end, and perhaps would induce the Secretary of War to allow the Colonel to remain in Cleveland until contemplated and pending improvements are further under way.

Capt. J. H. Pettit, of Chadwick, N. J. keeper of the life-saving station at that point, is visiting Capt. Motley of the local station. Service on the coast is suspended during June and July and Capt. Pettit has taken this, the first opportunity for a number of years, to visit the lakes. As usual among those who come to the lakes for the first time, Capt. Pettit is surprised at the extent of the commerce and the size of the tonnage engaged in fresh water navigation, as well as the smart, skillful and seamanlike manner in which the very largest craft are handled in the narrow and tortuous harbors, and he candidly admits that his short experience here is quite a lesson and a revelation to him although in a general way he had watched the increase of lake traffic from a distance.

DULUTH—SUPERIOR.

Special Correspondence to The Marine Record.

The wheat shipments from Duluth for May were something over 3,000,000 tons, and there is more than 12,000,000 bushels in store at the present time. The freight rate at 2¾ to 3 cents furnishes all the tonnage necessary at present.

It is reported that the fire in No. 2 shaft of the Calumet & Hecla mine is believed to be out. Two shafts closed on account of the fire were opened Sunday and very little gas was found. Other shafts at the north end of the mine will be opened and a large force of men put to work.

Capt. McBride, late chief mate of the steamer Sachem, Capt. Thos. Ledden, owned by the Mitchell & Rowland Lumber Co., Toledo, Ohio, who fell from his boat a few weeks ago and broke his back, is resting easily at St. Luke's hospital. He was put on an air mattress this week and it afforded him great relief.

The biggest ore discovery of the year in Minnesota developed this week near Mountain Iron on the Mesaba range, and 8,000,000 tons of ore is in sight. The find is upon state land and the lease is owned by A. M. Miller, Jr., John G. Brown and Alfred Merritt. The mining royalty of 25 cents per ton will enrich the State to the extent of $2,000,000.

Mr. J. L. Travers, 1 E. Superior St., Duluth, has issued the second annual edition of his Marine Directory. The little book, of vest pocket size, gives the names of vessels and the officers appointed to same at the opening of navigation. Mr. Travers is to be complimented on his evident desire to please his patrons, and, in this instance, the excellent way in which he has arrived at the objective point. Next year the work will be larger and consequently more inclusive and complete.

The Superior Ship Building Co. will launch on Saturday next the largest steamer ever constructed at the head of the lakes. The Van Hise has been built to the order of the Bessemer Steamship Co. and will be used in the ore trade. The hull was built under the supervision of Robert Curr, in the interests of her owners, and the engines and other machinery were constructed under the supervision of Duncan Fraser, the Bessemer Co.'s shore engineer. The Van Hise will also have the first engine built at the machine shops of the company. It is a quadruple-expansion engine with steam generated by three Scotch type boilers, with a heating surface of 2,250 square feet. It is estimated that the Van Hise will carry 6,000 tons on the usual draft through the connecting waters of the lakes.

The recent heavy slump in the prices of manufactured iron and steel makes some people around here think that the ore shipments will not nearly reach the much talked of 20 million tons for the season. There is no telling what activity in iron ore shipments may take place even within a few days especially as it is reported that the Rockefeller and Carnegie interests have got together again, at the same time, it is said that the season shipments is likely to fall behind a couple of million tons at least. The situation, however, is much like guess work just now. The Bessemer Steamship Co., may actually force rates on iron ore up to $1.25 which is a 25 cent advance on going rates, but, it is considered rather doubtful if more than a 10 cent advance will be offered this month. In the meantime the fleet is being laid up and the crews paid off.

Of course there is nothing done designedly and tug boats are as carefully handled as ever, but the steamer Brazil owned by Drake and Maytham of Buffalo, Capt. Smith, and the W. H. Gratwick, Capt. Joseph Hulligan, belonging to the same owners, and chartered by the Canada Atlantic Transit Co., came together in the harbor here with the result that the Brazil is damaged several thousand dollars. The Gratwick was in tow of the tug Abbott and she also sustained considerable damage. The City of Paris, Capt. E. D. Ballentine, owned by the McGraw Trans. Co., Bay City, grounded in the Allouez Bay channel on Saturday and neaped about three feet, so that tugs were unable to float her after working on her all day. A southerly wind was accountable for a foot shoaler water than usual and that didn't help the situation any. The Anchor Liner India, Capt. O'Neil and the Oglebay, owned by D. C. Whitney of Detroit, came together when the India was backing out of her dock. A few hundred dollars will cover the damage to the latter boat.

THE steamer Clyde, owned by the Tonawanda Iron & Steel Co., Capt. J. S. Neal, has been libeled at Milwaukee for the collision damage sustained by the schooner William Aldrich early Thursday morning off South Manitou island. The amount claimed by the owner of the schooner is not known, but as the bond of the steamer has been fixed at $1,200 it is supposed to be in the neighborhood of $800.

CHICAGO.

Special Correspondence to the Marine Record.

A small steamer has been chartered by the Chicago and Muskegon Transportation Co. to run between Muskegon and White Lake ports in connection with its line.

The crew of the Northern Michigan line steamer, plying between Chicago and Mackinac Island has presented Capt. Wm. Finucan, in command of the steamer, with a gold watch, as a mark of esteem.

Clarence E. Long, Sturgeon Bay, Wis., has developed the art of compass adjusting and has been kept quite busy so far all season, during which time he has visited the lower lakes. He has several jobs on hand here this week. Mr. Long represents home talent, and his services seem to be appreciated.

The evidence against Frank O'Hara, second mate of the steamer F. & P. M. No. 1, who was charged with striking the lookout of the boat, was insufficient, and he was discharged by United States Commissioner Simeon King. The complainant was John Pinter, who said he was struck by O'Hara while the vessel was sailing between Milwaukee and Chicago May 23.

Major Willard, Corps of Engineers, U. S. A., in charge of this district, has completed his investigations of the current in the river and its effect on navigation. The report will be promptly forwarded to Washington. According to President Bodenweck, of the Sanitary Trustees, the drainage canal creates no current at all, or at least nothing more than an easy flowing two mile motion. In the meantime, the harbor engineer employed by the city, is condemning property along the banks of the river on account of encroachments on former harbor lines, etc.

Reports have been sent here regarding grain cargoes not turning out as they should do at Buffalo, and shippers have been on a still hunt to make sure of cause and effect. On Friday last the steamer Black Rock was chartered to load 95,000 bushels of corn at South Chicago for a Lake Erie port. While the grain was pouring into her hold from several legs the inspectors discovered that it was not "up to grade," or worse than that, and all work was ordered stopped. After other inspectors had been called in a force of shovelers carefully made openings in the body of grain, and the condemnation pronounced by the regular inspectors on the cargo was fully endorsed. After great delay to the steamer a portion of the cargo was taken back into the elevator, other grain supplied and the loading of the cargo was completed.

Underwriters and the general agents are inclined to shake hands with themselves at the absence of claims so far this season. More careful navigation and reduced speed in thick weather is given due credit; it is also stated that the new form of policy whereby owners are compelled to carry a large uninsured interest tends to minimize casualties on acconnt of the extra caution which owners order their masters to observe. Moreover, a large quantity of tonnage is running without insurance this season and this feature makes the masters pay more attention to the ordinary practices of careful sailing. However, whichever way it is, lower premiums are to be looked for next year on account of the immunity from casualties this year. There is ample time, though, for a few thumping good total losses and heavy general average claims to advertise the business of underwriting before the season comes to an end.

Much interest is felt in the action of the Great Lakes Towing Co. against the Barry Bros. owning any tugs. A right to engage in the towing and wrecking business is claimed on the strength of the Great Lakes Towing Co. having secured a monopoly on the Great Lakes, with the exception of Lake Ontario. The port of Chicago is credited with handling 16,000 vessels annually, giving a tonnage of between 12,000,000 and 13,000,000 tons. Seventy-five per cent. of this amount, it is stated, will have to take tugs, owing in part to the increased current. Then the claim is made that as the business is so great a harm is wrought by the Great Lakes Company controlling the towing of these vessels to their docks. Arguing further, the answer asserts that the tug trust secured a monopoly of the business to increase the price of towing, and that if the defendants are enjoined, it will amount to an expatriation, and practically compel them to quit business.

Vessel interests are looking up the situation regarding the river here and will formulate a report to the district officer, Major Willard, Corps of Engineers, U. S. A. A great deal of importance is attached to the subject of additional controlling works for the drainage canal and for the bear-trap dam. It is urged that without an additional safeguard, in the shape of a gate at Robey street, an accident to the works at Lockport might at any time bring about a great catastrophe along the Chicago river. "If that dam gets away from them at any time and drops wide open," said one of the committee, "the stage of the water in the river will decline three to four feet and many of the buildings along the river front might go down in the water. We made inquiry as to whether there was any superintendent or other official on duty in the canal or river at night or on Sunday and found there was not." This is certainly a charming state of affairs for the water-borne commerce of Chicago to contemplate. The drainage canal commissioners seem to have acted the "dog in the manger" role to perfection, or as the "flatfoot" felt when he said, "B——you Jack, I'm all right," or in old Commodore Vanderbilt's strain of "the public be d——d." It will be all right though when it is made all right, and that will be when financial compensatory restitution is awarded to grossly and wilfully damaged marine interests.

The Chicago Tribune, in an article entitled, "Commerce Deserting the Chicago River," is certainly doing its level best to injure the city by the arguments used, this too, in spite of the decision arrived at by the Drainage Board, which decided upon improving the south branch of the Chicago river before it was written. The board will make the river 200 feet in width and thirty feet deep, and to accomplish this, will buy land on either side and have the tunnels lowered. To which the Black Diamond remarks, "What's the matter with the Tribune? Why not lower the tunnels and remove the center piers of bridges at once? This would at at least save a portion of the river's traffic for the fall and coming year, while to wait for the law's delay in condemnation proceedings, etc., would be to witness the greater portion of the commerce withdrawn to other and more favorable ports of entry and departure. Immediate action is necessary to retain the grain, coal and lumber business for the best distributing port on the chain of lakes." Which, by the way, is a sensible view of the situation, and one that is strongly endorsed by those representing the best interests of the lake marine. There is no reason for dilly dallying in the matter of restoring Chicago river to its former navigable condition. Commerce has been hampered and partially destroyed through a voluntary act, the effect swiftly followed the cause, now, immediately neutralize both, or as near thereto, as it is possible to do so.

DETROIT.

Special Correspondence to the Marine Record.

The steel workers at Jenks Ship Building Co. now have a half holiday on Saturday, and are paid every week.

The steamer City of Rome, Capt. John G. Owen, collided on Lake Huron with the Canadian owned schooner Vienna on Monday. The schooner was towed into Alpena in a sinking condition.

The widow of the late Capt. Thomas Wilson, of Cleveland, conveys her thanks to Detroit vesselmen for expressions of sympathy in her bereavement, through a telegram sent to Capt. J. W. Westcott.

The steamer Alfred Mitchell, 1751 tons gross and 1550 net, built at St. Clair, Mich., and hailing from Port Huron has been granted an official number this week by the Bureau of Navigation, Treasury Department, Washington, D. C.

The new steamer Pittsburg has arrived here from Collinwood to receive her finishing work and furniture ready for service on the Georgian Bay route. The hull is painted white, with yellow stack and presents an attractive appearance.

Capt. J. A. McCoy, master of the barge Fontana, has the distinction of sending the first registered letters ashore by the marine delivery boat Florence. All passing boats are furnished with both registry and money order blanks now, and Postmaster Dickerson has received a number of messages of thanks from appreciative vesselmen.

The steamer Arundel, which has occupied Clark's dry dock for some time, will clear from Detroit Thursday, for Charlotte, N. Y., via the Welland canal. The Arundel has been completely overhauled, and to some extent refurnished for the season. She will make a fine appearance when she takes up the summer run on the St. Lawrence next week. Capt. John Robinson, formerly of the Darius Cole, will be in command.

The first cargo of Canadian lumber of this season reached Bay City on Saturday last, being brought from John's Island by the barge Quinby. The lumber was for Eddy-Sheldon Co. and Bradley-Miller Co. Some lumber has previously been shipped this season from Canada, but it was consigned to Saginaw. There is a duty of $2 a thousand feet on the lumber, and the duty was promptly paid to the Deputy Collector of Customs.

From the big lumber companies with yards on the River Rouge, comes a protest against the slow work in attending to the needs of navigation in that stream. A prominent lumberman, who also has an interest in vessel property, reports how matters have been allowed to run from bad to worse, till now the channel is so stuffed full of sand and debris that boats are barely able to load to a depth of 10 feet without getting stuck before reaching their dock.

A company is being organized at Bay City, Mich., for the purpose of building docks and erecting hoists, etc., for coaling vessels at that port. It is proposed by those interested to erect apparatus with a capacity for handling 1,500 tons of coal a day, with an increase when demand necessitates. The prospective site is the Michigan Central lighter docks in West Bay City, where there are excellent trackage facilities. From $10,000 to $15,000 will be required to establish the plant.

The new wooden steamer Alvin Chisholm, which was launched at Anderson's shipyard, Marine City, on Saturday last, will go to work on the contract for the government piers at Kelley's Island, Lake Erie, as soon as she is equipped. She was ordered by John Corrigan, of Cleveland, last fall, and he sold her while on the stocks to the Kelley Island Lime Co. She will be in charge of Captain Dan Henderson. The steamer measures 152 feet keel, 165 feet over all, 35 feet beam, and nine feet depth of hold. She will be given twin screws, and the largest sand pump on the lakes, with the latest machinery and an electric light plant.

On Saturday last there was launched from the shops of the Michigan Yacht and Power Co. one of the handsomest steam yachts, that has ever been turned out by a Detroit boat building firm. The new craft is the Mohawk, designed for Atlantic coastwise cruising. She was built and is being finished for D. P. McQueen of Detroit, Mt. Clemens and New York, a gentleman connected with the Schenectady Locomotive Works. The Mohawk is 65x11-feet and is being equipped with a triple-expansion engine.

Capt. James Davidson's dry dock, started at his West Bay City shipyard several months ago, is well along toward the point where it can be speedily completed. The gate piers have been finished, the gates are being constructed and the pump well is being built. There are two centrifugal pumps, each of 20,000 gallons per minute, which will clear the dock of water in one hour. The dock is 440 feet long, and will admit a boat 60 feet wide. There is plenty of land to permit the dock being lengthened 200 feet if necessary in the future.

The Ohio-Siberia-Mather collision case will come up again on June 27, when United States District Judge Wanty is to hear arguments as to the division between the owners of the Ohio and the underwriters of the amount still held in abeyance, $27,000. The Mather and Siberia were held at fault for the collision in St. Mary's river about five years ago, by which the Ohio was badly damaged and went to the bottom. Each paid her share of the damages to the registry of the district court at Detroit. All but the sum specified has been divided, and both owners and insurance men claim the $27,000.

"The opportunity for the lumber carriers to restore their rates is within the grasp of the carriers if they will only take advantage of it," said John Stevenson this week. "The going rate is not a living one, and if the vessel owners are prudent they will follow in the wake of Rockefeller and refuse to accept the present figures. The Tawas rate is $1.50 and it is less than lumber can be carried for under the present expense of handling of cargo and boats. The rate from Tawas to Ohio ports should not be less than $1.75 and $2 would not be too much. The rate from the head of the lakes is $2. This should not be below $3. The quality of hemlock being shipped from Tawas now is like hardwood and costs as much to handle.

On her first trip to Toledo and after the Dewey celebration, the new passenger steamer Tashmoo made the run from Detroit to the gas can buoy, about 46 miles, in 2 hours and 33 minutes, with but five of her seven boilers working. No attempt was made to put her to her best speed, on account of everything being new, but when her machinery has been worked for a week or two, the Tashmoo will easily clip off 21 miles an hour. The machinery is similar to that of the steamer City of Toledo—inclined triple-expansion engine. In this kind of engine there is no lost motion. There is a steady, even movement, and when quick work is required, the boat may be driven at an easy 21-mile speed. The officers of the Tashmoo are: Captain, A. S. Baker; mate, George Klingler; purser, A. H. Cramer; steward, L. W. Smith; first engineer, Winifred Dubois.

Mr. F. W. Wheeler with a party of friends on his steam yacht Catherine attended the Dewey naval parade last Saturday, and, while on Lake St. Clair, she grounded heavily and sprung a leak so that she had to be beached. Mr. Wheeler is of the opinion that the boat struck a pile of iron ore jettisoned from a vessel sunk about a year ago at the place where the mishap occurred. When the yacht struck there was a rising of red colored substance from the bottom, thus making plausible the ore theory. An investigation will be made to determine why the spot was left ununmarked. It is very expensive work finding artificial shoal spots at the cost of a partial destruction of valuable tonnage. Any bulk cargo jettisoned in shoal water, or in a fairway, should be removed as soon as possible or the spot be adequately buoyed at least.

After a somewhat unlucky career on the river the passenger steamer Unique was sold at St. Clair on Tuesday at sheriff's sale for $11,000. The first bid was $9,000, made by the St. Clair County bank, which held a mortgage for that amount on the steamer. W. L. Jenks, acting for the Commercial & Savings bank, of St. Clair, which held a second mortgage of $2,000 on the boat, bid $10,000, and then the vessel was knocked down to the St. Clair County bank for $11,000. The bank will sell the Unique to Capt. Wm. Laidlaw, of Ogdensburg, N. Y., who, it is expected, will use her on the Thousand Island route in the St. Lawrence river. The price, it is said, will be $20,000. The steamer cost over $40,000 and was built to run between Detroit and Port Huron. It was intended she should be the fastest craft on the lakes, but numerous accidents to her machinery gave her a bad name among the traveling public and the venture proved a losing one. The steamer will now be put on a passenger route out of Ogdensburg, N. Y. and it is to be hoped that her future service may be more successful and remunerative than her past.

THE American Fishing Co., operating in Lake Erie, has just launched a fishing boat at Detroit which is counted on to be able to distance the Canadian revenue cutter in point of speed in case the craft should unwittingly, or otherwise, be found fishing on the wrong side of the line running through the middle of the lake, which marks the boundaries between the United States and the Dominion of Canada. The new tug is 66 feet over all, 14 feet beam, 9 feet depth of hull, and with a mean draft of 5 feet. She is equipped with high pressure engines, and can make good time when it is found necessary to skip from the Dominion fishery cruiser.

THE "LUCAS" CENTER OF GRAVITY INDICATOR.

(ILLUSTRATED.)

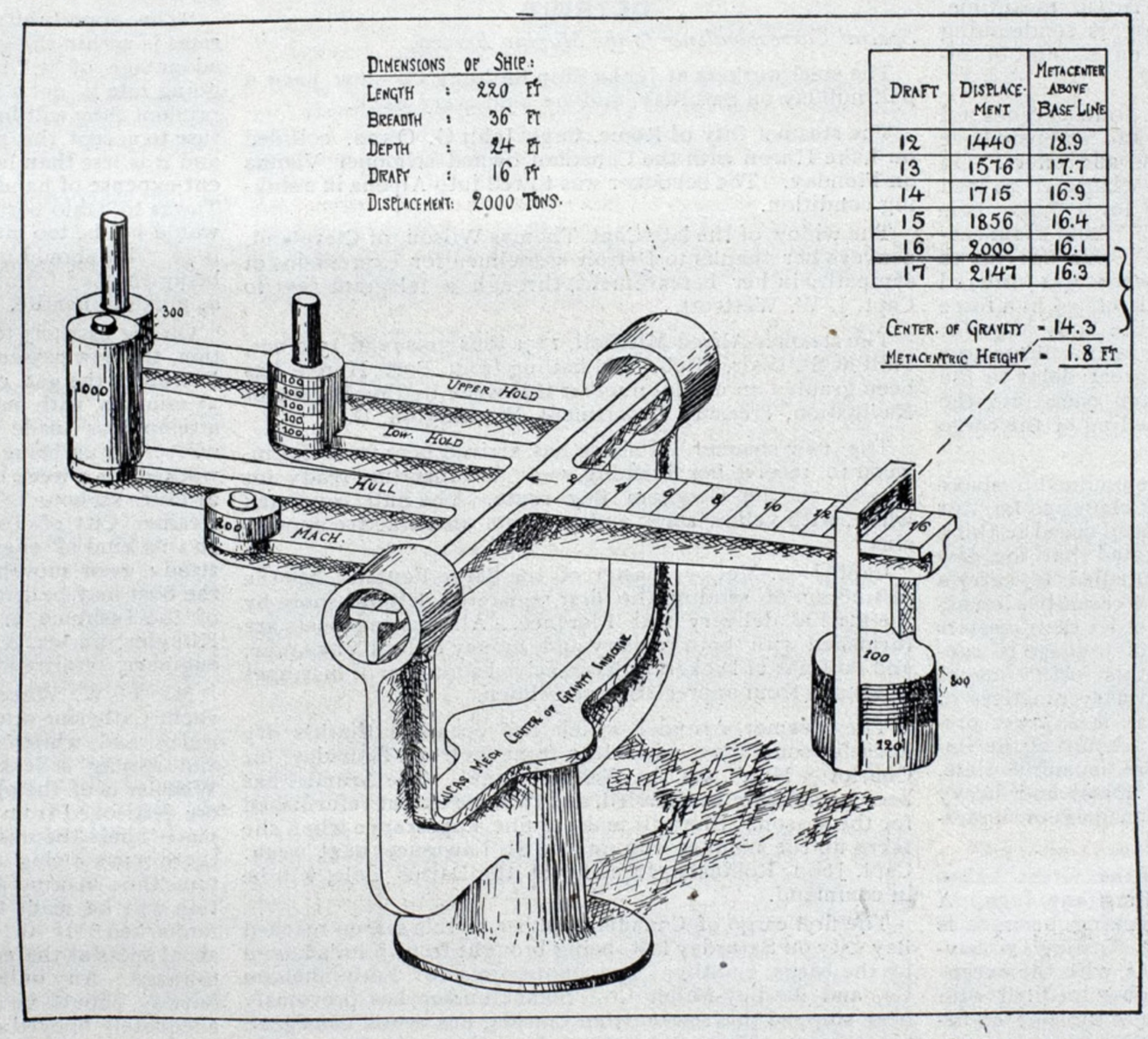
The increasing interests of American shipping, arouse new and enhanced interest in the safety and sea-worthiness of ships, and as the factors that govern these qualities of ships are quite complex, a statement of how the safety of ships may be endangered, or can be preserved, may prove of interest to ship and yacht owners, marine insurance men, classification officials and surveyors.

The most important questions that have to be considered under this head are: 1. Strength of Hull. 2. Freeboard. 3. Initial Stability. 4. Stability under Inclination. 5. Watertight Sub-division by Bulkheads.

Every since ship-owning has assumed commercial importance, the interests of owner and the interests of the underwriters have tried to establish certain regulations to improve the safety of ships as much as possible, and the outcome has been the establishment of classification companies for classifying ships into different degrees of rating after their strength, durability and seaworthiness.

1. Strength of ships as provided by thickness of individual members is usually ample, if the requirements of the classificationrules are followed; in certain cases, principally in ships short in proportion to breadth and depth, even an excess of strength is found, as the combination numerals, employed by the classification societies, can be applied only to an average proportion, to get good results. Aside from the results of strength calculations as a function of a certain assumed bending moment, it is highly desirable to consider the effect of the fore and aft distribution of the weights, as it may affect the bending moment to a quite perceptible degree and bring the factor of safety below a permissible limit.

2. Freeboard is absolutely essential for the safety of ships, first: as preventing too high a bending moment through excess of immersion; second: for providing a sufficient range of stability under inclination; third: for keeping the deck openings at such a height, that waves of ordinary dimensions will not wash over the deck and enter the holds below. The length of the ship is of considerable influence upon the possibility of waves proving dangerous to the safety of the ship; so is also the sheer, the extent of deck erections, besides the form of the ship herself. It seems quite possible to agree on certain ratios of wave lengths to wave heights anq then insist on fixed safety margins, graded for different classes of ships, to insure a fair and quite complete consideration of this important question.



3. Stability is the most important consideration for the safety of a ship, at the same time that it has the greatest influence on comfort and habitability. Unfortunately it seems to be the one that for merchant vessels has received the least consideration, though it deserves the greatest. Numbers of ships are built every year with insufficient stability that have to carry ballast permanently to the detriment of their earning capacity, besides being in constant danger of capsizing by faulty handling of the water ballast.

The difficulty for practical seamen, surveyors and underwriters has always been in the direction of finding the center of gravity of the ship under the manifold and ever changing conditions of loading and stowing. For the permanent parts of the ship like hull and machinery, the center can be found easily and accurately by heeling the ship in the light condition. For all the changeable weights a "Lucas Mechanical Center of Gravity Indicator," can be employed, that will give in the hands of practical men exact results, expressing the metacentric height simply the by subtraction of two figures.

4. The range of stability for ships under inclination can be accurately established by the many methods that have proved rapid and reliable. For ships with good initial stability and liberal freeboard, as mostly found on our American coasts, the inclined stability proves generally quite satisfactory, although no ship should be allowed to go to sea until her stability qualities are fully investigated.

5. The question of water-tight sub-divisions is of the greatest influence on the safety of ships. Toward the extremities the effect of filled compartments is very pronounced on the trim of the ship, endangering her safety by submerging the tops of the extreme bulkheads and opening new compartments to the inrush of water to the ultimate loss of all buoyancy. Very few ships will come up to the requirements of having some freeboard left at the extreme ends, if two adjoining compartments are flooded. The inventor of the "Mechanical Center of Gravity Indicator" is Theodore Lucas, 97 Water street, New York, and he states that in view of accidents like that which happened to the French Liner Bourgogne, it should prove of the utmost importance and be of the greatest interest to ship owners and underwriters, to have at least all passenger ships subdivided to such an extent, as to practically exclude the possibility of such dreadful calamities.

The great difficulty attending the stowing of ships to secure a certain and absolute safe condition of stability, has been for years a great inducement to some of the most eminent ship-builders and scientific and practical men connected with shipping to find a simple and practical way of indicating the change of stability of the ship, that a certain change in the amount or position of cargo, or a large body of people will produce.

These variations of the center of gravity of the whole ship, as effected by the changes in the individual parts, are in a most simple and practical way read off from the accompanying illustrated "Mechanical Center of Gravity Indicator."

The apparatus is for finding the vertical position of the center of gravity above the base line. The levers on one side have pins representing the centers of the individual weight-items, as hull, machinery, cargo-hold, in a scale corresponding to their respective distances above the base line. It finds for the total weight on the other side the resultant center of gravity above the base line in the same scale marked on the face of the beam reading for off.

The operation is as follows: Put the single weights on their respective pins on the left side; then put weights equal to total in the hanging pan on the right side and shift the pan until beam balances.

The scale on the upper face of the right hand single lever will tell the distance of the center of gravity above the base line. By simple subtraction from the distance of the metacenter above the base line the metacentric height is found in the simplest manner possible. All possible combinations as affected by the items that can be changed at will, can be found with the smallest expenditures of time and effort. If, for example, the whole 800 tons of load are placed in the upper hold, the center of gravity would be 16.8 feet above the base line, showing a negative stability of 0.7 feet, an unsafe condition that would make the ship capsize. If the whole 800 tons of load are placed in the lower hold, 12.8 feet would be the result, giving a positive stability of 3.3 feet, a safe condition, but undesirable, as making the ship too stiff and violent in her movements in a sea way.

It will be seen how with this apparatus, an intermediate position of the center of gravity can be found, that will give an absolutely safe ship and still retain the maximum of comfort and ease of movements, giving the best sea speed and, financialy as well as mechanically, the highest efficiency.

THE ANNUAL SERVICE OF LIFE SAVERS.

"The crews of the life-saving stations along the New Jersey coast have gone off duty. The captain of each station is on duty all the year. The crews will go on duty again on Aug. 1, and the pay of the patrolmen will be increased from $60 to $65 a month. The crews on the lakes are on duty all the year round."—Shipping List and Maritime Register, Philadelphia.

"On Thursday night last the crews of the Life Saving Stations along the New Jersey coast went off duty, to remain until August 1st, except the captain of each station, who remains all the year. On August 1st, the pay of the patrolmen will be increased from $60 to $65 a month, the captain getting $900 a year. To be laid off two months in the year without pay, the slight increase in wages of five dollars a month does not fairly compensate these brave men with families, and who have to face the dangers their calling requires of them. Why shouldn't they, as well as the life-savers on the Great Lakes, be kept on duty all the year round? Why discriminate?"—American Shipbuilder, New York.

We are sorry to see our contemporaries making such a jumbled statement regarding the lake and coast service of life-savers. In reply to the first quotation, the lake crews are not on duty all the year round, they lose one-third of the year. The American Shipbuilder is still further off, the increased, or rather the old and former rate of pay will go into effect at the beginning of the fiscal year July 1, not August 1. The discrimination, if any exists, is in favor of the coast stations, as the crews' services are dispensed with for one-sixth of the year, while the lake stations are closedduring one-third of the year, strictly speaking, the lake service ranges from eight to eight and a half months each year. It would thus appear that surfmen at coast stations will receive an annual compensation of $650, while those on the lakes are entitled to an aggregate of $520, or to a maximum of $552.50 if the station is kept in service to the full limit of time, or from the earliest opening to the latest closing of the season of navigation on the lower lakes.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	817,000	237,000	289,000	3,000	187,000
Chicago	9,795,000	3,643,000	1,221,000	366,000	.....
Detroit	147,000	98,000	6,000	5,000	1,000
Duluth	11,659,000	1,194,000	385,000	39,000	52,000
Fort William, Ont.	2,121,000	.....	.....	.....	.....
Milwaukee	253,000	2,000	.....	.....	1,000
Port Arthur, Ont.	124,000	.....	.....	.....	.....
Toledo	176,000	542,000	261,000	2,000	.....
Toronto	29,000	.....	11,000	.....	19,000
On Canals	639,000	335,000	57,000	88,000	51,000
On Lakes	966,000	1,535,000	316,000	35,000	75,000
On Miss. River	.....	.....	.....	.....	.....
Grand Total	44,407,000	11,228,000	6,135,000	899,000	761,000
Corresponding Date, 1899	27,601,000	13,236,000	8,005,000	892,000	1,264,000
Increase	.....	.....	.....	.....	.....
Decrease	297,000	1,150,000	906,000	152,000	49,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

CORROSION AND FAILURE OF PROPELLER SHAFTS.

At the last meeting of the Institution of Naval Architects in London, England, a paper on Corrosion and Failure of Propeller Shafts, was read by A. Scott Young, B.Sc. He had his attention called to the frequent fractures of tail-end shafts, many of which had resulted in disastrous loss of property and still more lamentable loss of life. It could hardly be doubted that these shaft failures of late years had been on the increase. That this was widely recognized was evident by the amount of attention the subject had received on all hands. A list had been published of 83 casualties which occurred to the shafts and propellers of classed vessels during the months of January to July (inclusive), 1899. On analyzing these cases it seemed that 10 per cent. of them were accidents to propeller only, due to grounding and other obvious reasons. Of the remainder it appeared that accidents to propeller shafts were 50 per cent. more numerous than those of all other kinds of shafting taken together. According to a well-known shipping paper there were in 1899 nearly 250 cases of accidents to the shafting and propellers of steamers of all nationalities. The particulars of these were not given with the same exactitude as those already mentioned, so that a similar analysis was impossible; but, assuming the same proportions be observed, it would appear that about 135 of these must be failures of tail-end shafts. In addition to these, it was well known that during the year a very large number of propeller shafts were condemned when under survey; but in the absence of data no useful estimate of the number could be made. Enough had been said, however, to show that the evil was one of wide and far-reaching importance. At the conclusion of the paper Mr. Young suggested as a remedy for these frequent failures (1) increased diameter of the shaft; (2) (a) reintroduction of outer bearing, (b) minimum weight for propeller, (c) increased water ballast; (3) the abolition of brass liners, and run shaft on white metal, with oil or tallow surrounding it. Except for the statement that these shafts were made of either iron or steel, nothing had been said about the material; and, so far as this corrosion was concerned there did not appear to be much difference, though it was generally considered that steel was more subject to it than iron. It was, perhaps, owing to this that there was a preference in some quarters for propellers made of good scrap or faggoted iron; but, owing to the difficulty of procuring iron of uniform quality it was considered preferable by the writer to make propeller shafts of ingot steel. Especially would this material commend itself if the plan last referred to were adopted, as a good ingot shaft when turned was absolutely free from reeds or marks, and would be likely to run sweetly on the white metal bearing. Apart from this advantage such a shaft was uniform in quality, and much tougher than iron, and therefore better adapted for the severe work of driving a propeller.

AN ANCIENT SCREW PROPELLER.

A correspondent from the University of Virginia sends us an extract from a letter of Thomas Jefferson, dated Paris, Oct. 2, 1785, written to his scientific friend, Bishop James Madison, of Williams and Mary college, which illustrates Jefferson's well-known interest in scientific matters, besides being important as it contains a reference to the introduction of the screw propeller:

'I went some time ago to see a machine which offers something new. A man had applied to a light boat a very large screw, the thread of which was a thin plate, two feet broad, applied by its edge spirally around a small axis. It somewhat resembled a bottle brush, if you will suppose the hairs of the bottle brush joined together and forming a spiral plane. This turned on its axis in the air, carried the vessel across the Seine. It is in fact, a screw which takes hold of the air and draws itself along by it, losing, indeed, much of its efforts by the yielding nature of the body it lays hold of to pull itself on by. I think it may be applied in the water with much greater effect and to very useful purposes. Perhaps it may be used also for the balloon."—Scientific American.

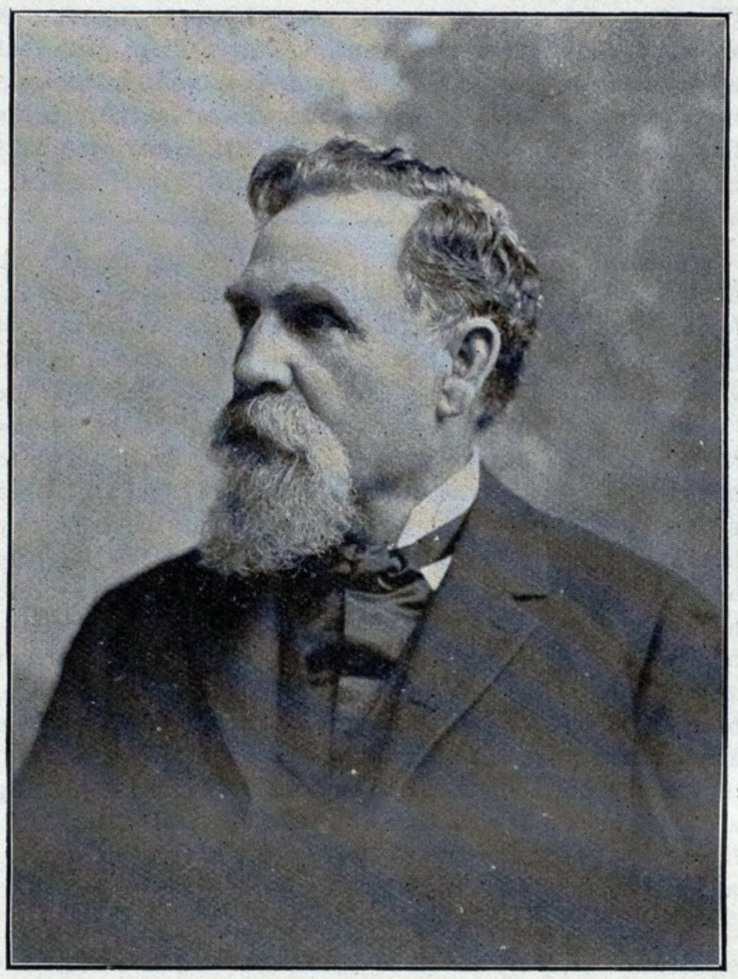
Shipping—Damage to Cargo—Delay in Preparing Vessel for Loading.—A contract of affreightment becomes effective, so as to render the carrier liable for its breach, only from the time the goods are delivered for shipment; and the owner of a cargo has no lien upon a vessel for injury to such cargo resulting from delay in preparing the vessel for loading which occurred before the cargo was received by the owners or their agents. The Hiram, 101 Fed. Rep. (U. S.) 138.

ROBERT LEARMONTH, M. E.

(BIOGRAPHICAL SKETCH.)

The many business associates, friends and former shipmates of Mr. Robert Learmonth will no doubt enjoy the perusal of a brief synoposis of his active and lengthy career in marine engineering circles.

After due and careful inquiry, it is learned that in 1847, when at the age of sixteen years, Robert Learmonth left the parental roof for the city of Quebec, and there entered into a five years apprenticeship in the pattern shop of what was then known as "Bissitts' Foundry." After two years, business became very slack and the proprietor of the works advised him to enter the machine shop. There he finished the remaining three years of his apprenticeship, which expired in March, 1852. He then left Quebec and after working for a few months in Kingston and Toronto, moved to Buffalo in September of that year, or nearly half a century ago. In Buffalo he was fortunate enough to at once find employment at his trade in the Shephard Iron Works. He worked there until the following spring; then he started to work with the Buffalo Steam Engine Works, which firm eventually sent him on his first trip up the lakes on the propeller "Iowa." In the summer of 1854 he shipped as 2nd engineer on the Toledo of Buffalo, and remained with her until the close of navigation. He then went back to the shops of the Buffalo Steam Engine Works. This firm afterwards entrusted him with the fitting up and putting



ROBERT LEARMONTH, M. E., BUFFALO, N. Y.

engines into the steamer Relief for the Ætna Insurance Co. In the spring of 1855 he went to Milwaukee and placed the engine in the steamer Allegheny for the American Transportation Co., and sailed as her chief engineer for two seasons, or until the panic of 1857 set in. He then remained on shore until the commencement of the war of the Rebellion, when he was again employed on the lakes until the close of 1865, when he became master mechanic and chief engineer of the Buffalo Iron and Nail Works, remaining in its employ until 1880, when the partnership of the company was dissolved and it went out of existence. Shortly after this he was appointed to the U. S. Steamboat Inspection Service as boiler inspector for the Ninth District with offices in Buffalo, in which position he remained for three years, leaving to engage in service as chief engineer of the Anchor Line of steamers, and after sixteen consecutive years of employment he resigned from that position last March, to attend to the manufacture and sale of his patented invention, the "Buffalo Feed Water Heater and Purifier," which has been adopted for use on all the large modern steamers on the lakes, as well as on large stationary plants.

In closing this plain sketch, it may be stated that Mr. Learmonth is from Scotch ancestry; also, that on the occasion of his retiring from lake service, the employes of the Anchor Line very generously and gracefully, and as a complete surprise, fitted up his suite of offices in every detail. In a recent interview with a personal acquaintance of the subject of the foregoing sketch he said: "Robert Learmonth has a heart bigger than all outdoors. He never could feel that even the commonest deck-hand or fireman was not deserving of the best possible treatment, and he always gave his efforts towards the bettering of the condition of every man who needed his help, whether he sailed in an Anchor Liner or otherwise." On his office wall hang resolutions adopted by the Buffalo Marine Firemen's Association embodying sentiments that briefly tell what a grandly good thing it is to live up to the "Golden Rule."

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the Sun's setting. The bearing may be taken when the Sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Sunrise.	Amplitudes.	Bearing P'ts.	Bearing Comp.
June 15.....	E. 32° N. =	N. 5⅛ E. =	N. E. by E. ⅛ E.
June 22.....	E. 32° N. =	N. 5⅛ E. =	N. E. by E. ⅛ E.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.

Sunrise.	Amplitudes.	Bearing P'ts,	Bearing Comp.
June 15.....	E 33° N. =	N. 5 E. =	N. E. by E.
June22	E. 33° N. =	N. 5 E. =	N. E. by E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Sunrise.	Amplitudes.	Bearing P'ts.	Bearing Comp.
June 15.....	E. 35° N. =	N. 4⅞ E. =	N. E. ⅞ E.
June 22.....	E. 35° N. =	N. 4⅞ E. =	N. E. ⅞ E.

LAKE SUPERIOR, LAT. 48° N.

Sunrise.	Amplitudes.	Bearing P'ts.	Bearing Comp.
June 15.....	E. 36° N. =	N. 4¾ E. =	N. E. ¾ E.
June 22.....	E. 36° N. =	N. 4¾ E. =	N. E. ¾ E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

NOTICE TO MARINERS.

OFFICE OF THE COLLECTOR OF CUSTOMS,
PORT OF CLEVELAND, O.

By direction of the Secretary of War, all persons are hereby warned that it is dangerous to navigate the waters of the east end of Lake Erie between the southern end of the present Buffalo breakwater and Stony Point, where the new breakwater is now under construction, and all persons so navigating do so at their own risk.

And further, all persons are warned that the operations of the Government contractors engaged in extending the breakwater must not be interfered with.

THOMAS W. SYMONS, Major, Corps of Engineers,
In charge of River and Harbor Works.

Buffalo, N. Y., June 4, 1900.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,
DETROIT, MICH., June 8, 1900.

Information has been received, from the light-house keeper at Duluth, that the structure and light No. 379, List of Lights and Fog Signals, Northern Lakes and Rivers, 1900, known as Connor's Point Front Post Light, Duluth-Superior Harbor, Wis., has been re-established and light exhibited since the night of June 4th.

By order of the Light-House Board. J. C. WILSON,
Commander, U. S. Navy, Inspector, 11th L. H. District.

Sweepers of the Sea. By Claude H. Wetmore. The Bowen Merrill Co., Indianapolis. Claude H. Wetmore, was born at Cuyahoga Falls and has done some wonderful things since then. "Sweepers of the Sea," however, is not one of the wonderful things he has done. The title page says it is a story of a strange navy and the book bears out the promise. It is a combination of marvelously incongruous incidents that throws Jules Verne into eclipse and causes Frank Stockton's "Great War Syndicate" to seem tame stuff. Mr. Wetmore announces in the preface that the original title of the book was "Inealand." Certainly the new title is far more fiercely in keeping with the idea. He confides also that the work is the result of many sleepless nights on equatoral waters. This last is gratuitous. Any one glancing into the story would not need to be told that the author, whether working at night or by day, was very wide awake. It is safe to say that the reader who begins this story when the lamp is first lighted will also have a sleepless night.

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CLEVELAND, O., JUNE 14, 1900.

THE Chicago drainage canal commissioners ought at once to place at the disposal of all vessels frequenting that port, a fleet of powerful tugs, equipped with the latest and best appliances for harbor towing, so as to facilitate waterborne traffic and minimize the vast damage expenses which the city will be called upon to bear, through, and on account of the premature opening of the drainage canal. Vessel owners, underwriters, shippers or consignees should not be called upon "to pay the piper" for the municipal entertainment furnished by the sanitary canal commissioners in their effort to euchre the present Secretary of War as well as the recently adjourned session of Congress.

IF the people of the State of New York endorse the recommendations of the State Commerce Convention, the DeWitt Clinton ditch will, in the future as in the past, be found an aggressive competitor to the Canadian canal system. If not, trade and commerce will follow the flag, and Montreal will improve at the expense of New York State and City. The sum of $60,000,000 is a vast sum to levy on the citizens of one State, but the exceedingly able arguments set forth by Major Symons, Corps of Engineers, U. S. A., fully guarantees the large expenditure. Major Symons declares that the towns and country bordering on the canal will profit more by enlargement, proportionately, than New York and Buffalo. Every point on the line of the canal will be be given the advantages of a lake port and a sea port. "I believe," says this competent and disinterested witness, that the iron and steel industries that would grow out of such a canal as proposed would alone justify the expenditure." The notion that the railroad interests of the State are, in the nature of things, antagonistic to an enlarged and prosperous canal route is scouted by Major Symons. The most prosperous railways in the world parallel water-highways. Canals and railways supplement one another. If a 1,000-ton barge canal is constructed the New York Central will have to double its equipment to provide for increase in local business. The people of New York must face the alternative of going forward and keeping abreast the enterprise of their neighbors or of abandoning the race. "New York State must fight or die," says this distinguished engineer. "She must not lie idle and supinely and think that she can control the situation because of her past greatness. The only way to parry these commercial assaults is to furnish the very best possible facilities for transportation between the lakes and the sea, and that I believe to be by the canal as proposed by the canal committee. The railroads cannot furnish the transportation facilities that will place and keep New York on her pinnacle of commercial greatness. This can only be done through the medium of an adequate waterway from the upper lakes to tide water at New York City."

A TURKISH admiral, Ahmed Pasha, recently inspected the larger shipyards in the United States, with a view to placing an order for one or more battleships. While in this country he expressed the opinion that the new ships recently added to the United States Navy are the best in the world. The Cruiser Variag, built at Cramp's shipyard in Philadelphia for the Russian government, has just been given a builder's or preliminary trial, and she reeled off 22 knots under natural draft and with one of her boilers not in use. The contract calls for a speed of 23 knots an hour for 12 consecutive hours, and her builders, as well as the Russian officers on board during her initial trial trip, are confident that she can exceed the requirements under forced draft. The Variag was equipped with her complete armament, and her stability under fire was severely tested while under full headway at sea, The Russian officers claim that she has as heavy a battery as any warship of her type in the world. Solid shot was fired from all the guns, the 6-inch guns carrying armor piercing projectiles a distance of from eight to ten miles. The Variag will have her official trial in July, and in August she will go into commission. She will be the fastest cruiser in the Russian navy, if not the fastest in the world. Now, if the Sultan of Turkey wants a fighting machine to guard the Sea of Marmora, sweep the Dardanelles, or strike a bull's eye in the jaws of the Bosphorous, let him place his order forthwith. In fact, he might go one or two better than the Czar of Russia, and then he certainly could chock the keyhole to the Black Sea, should the "Bear" at any time attempt to insert his paw therein. A satisfactory business arrangement, Mr. Sultan, and that magnificent seraglio facing the sea at Constantinople, might be forever protected and rendered invulnerable, through the floating shield offered by a line of the best (American) built battleships ever put afloat.

WHETHER inspired or not, or for what reason, specials are being sent over the wires from Chicago, embodying the inference that the current experienced through the opening of the drainage canal is rather beneficial than derogatory to vessel interests, also, that as tugmen here learned the "tricks of the current," and captains the "tricks of the trade," all talk of appealing to the War Department to modify the flow of water down the drainage canal has ceased among vesselmen. In these current reports of the tricky tricks of trade and currents, the trick seems to be slightly overdrawn, in fact, so much so, that the tricksters seem to have shown their hands in their apparent effusion of candidness. There are no tricks in handling vessels in a current or tideway. Knowledge, skill and experience alone counts, but even with these attributes aboard, masters must be given a little more space than the beam of their vessels to manœuvre in, while the masters of tug boats are capable of doing all kinds of monkey tricks with their powerful little craft, but monkey-like they can't make them speak, or not exactly so, just yet.

THE sanitary district commissioners having in charge the Chicago drainage canal, desire to have congratulations showered upon them on account of their intention to widen the river to a mean breadth of 200 feet. Now what is a width of 200 feet for vessels of 500 feet in length to pass each other in a current running at the rate of several miles per hour during the prevalence of northerly winds? Even at this width, how long will it take to lower the several artificial bars formed by the street railroad tunnels crossing the river?

A FLEET OF STEEL STEAMERS.

The American Ship Building Co., The Craig Ship Building Co., of Toledo, and the Jenks Ship Building Co., of Port Huron, were asked by Edward Carter, of Chicago, and W. W. Brown, of Cleveland, for bids on five steel steamers of the Welland canal size. It is understood they are not alone in the matter, but represent a syndicate that is organizing a corporation for the operation of a fleet in the lake and coast trade. It is the opinion among the builders that the American Ship Building Co. will get the order, as it has not only more yard room than the other concerns, but the facilities for turning them out in faster time than either Craig or the Port Huron yard. Their dimensions will be 240 feet keel, 40 feet beam, and 25 feet deep, and they will cost about $160,000 each. Coast yards can also bid on this size and class of tonnage. It is understood that they are to be built to the requirements of a local classification society who already have the specification particulars in hand.

THE NEW YORK STATE COMMERCE CONVENTION.

The New York State Commerce Convention held at Syracuse last week adopted almost unanimously the report of the committee on canals and placed itself on record as favoring an adequate waterway in the State. The report in substance stated that the future prosperity of the entire State required the improvement and enlargement of its canals in a manner commensurate with the demands of commerce and to a capacity sufficient to compete with all rival routes.

Gustave H. Schwab of the North German Lloyd Steamship Company spoke on "The Canals and the Foreign Commerce of New York." Mr. Schwab said in part:

"We are all agreed that New York owes her commercial supremacy to the Erie canal. The opening of the canal, in 1825, ushered in a new era for New York and placed her, as the leading city in trade and commerce, in the position so far occupied by Boston. The history of the phenomenal developement, not only of the State and city of New York, but also of the West, due to the building of this waterway, is too well known to need repetition. This canal, to which New York owes her greatness, is now in precisely the same condition in which it was in 1862. Since that time no comprehensive enlargement of the canal has been carried out, and it has, as an instrument of transportation, remained at a standstill these last 38 years, a period during which the most far-reaching improvements were adopted and the most dazzling progress was made by ocean and lake shipping. The permissible length of boats on the canal in its present innocuous condition is about 100 feet, their width 17½ feet, and their draft 6 feet. The maximum load of a boat of these dimensions is 240 tons, or 8,000 bushels of wheat, and the transportation cost per ton mile is estimated at a little less than two mills. Owing to the antiquated condition of the canal and its locks, not more than seven trips can be made per annum.

"In her present defenceless condition, New York is not only despoiled of her trade by these railroad combinations, but she has for some time past suffered and will in the future more seriously suffer from the competition of our Canadian neighbors, who, more far-sighted than their competitors, have extended, enlarged and deepened their canal system, at an expenditure, of over $56,000,000 during the last 50 years, so that the Canadian route from Lake Erie through the Welland canal, Lake Ontario and the St. Lawrence river and the canals along that river is now capable of taking vessels of about 2,200 tons capacity with a draft of from 12 to 14 feet. These improvements have led to the construction of elevators and warehouses at Montreal costing over $4,000,000, and contracts have been executed that will bring to Montreal 35,000,000 bushels of wheat each season, a large part of which should have gone to New York."

The speaker most thoroughly versed on the subject was Major T. W. Symonds, Corps of Engineers, U. S. A., stationed at Buffalo. His thoroughly practical, terse and positive views gave the convention a foundation to work on, nor could an exception be taken to any of the statements made by Major Symonds, whose speech is given in part as follows:

"The chief item of improvement recommended in the report of the canal committee was the enlargement of the Erie canal to fit it for barges of 1,000 tons capacity with the locks arranged for the passage of two such barges at one lockage. The estimated cost of all the improvements proposed to the Erie, Oswego and Champlain canals was about $62,000,000, of which $59,000,000 was for the Erie canal. The opinion that the State was justified in expending this large sum of money upon its canals was only arrived at after a long continued study of the matter and I believe that if every man in the State would study the question in all its wide ramifications and in an unbiased manner as I have done, the State would be practically unanimous for the great work of canal improvement. * * * * The reason why a ship canal is not the proper solution of the problem for the people of New York State to adopt I will give briefly, with the general reasons for the adoption of the particular canal which was recommended by the canal committee.

"In the first place, when we speak of a ship canal we must differentiate between a ship canal suitable in size for the accommodation of ocean going ships and one suitable for the ships of the Great Lakes. It is beautiful and inspiring to picture to one's mind the passing of great ocean vessels through our Atlantic ports and into and through the Great Lakes, carrying with them the products of foreign fields and foreign workshops right into the heart of the continent, and there being loaded with our own surplus products destined for the teeming populations of the world beyond the seas. But such a picture is believed to be an illusion which can never be realized.

"Commerce on the ocean is carried on in vessels drawing from 20 to 32 feet; and to utilize these vessels in the manner pictured would require a canal and lake and interlake channels 32 to 35 feet in depth. A canal of this depth from New York, the most accessible of all our Atlantic ports to Lake Erie, by any practicable route, would cost an enormous sum of money, probably not less than $300,000,000. If ocean ships could get into the upper lakes their troubles would not be over, for there are no harbors on the lakes suitable for their accommodation, and the channels between the lakes are not of sufficient depth to permit them to pass.

The United States has been working for years and has expended many millions of dollars in the effort to secure channels 20 feet deep between Lakes Erie, St. Clair, Huron and Superior. To deepen these channels to 30 feet or more would require years of time and the expenditure of vast sums of money. The cost of constructing a ship canal, with needed improvements of lake harbors and interlake channels, such as would permit of the realization of the beautiful picture of large ocean ships going to Chicago, Duluth and other upper lake ports, would be so great, probably not lower than $500,000,000, as to be entirely incommensurate with the good to be accomplished thereby. This circumstance is made the more emphatic when we consider that there is a grave doubt whether the ocean ships could profitably spend the time in going through the canal, even if one were built, and if all the other work outlined above were undertaken.

"If ocean vessels limited in draft to 18 or 20 feet, i. e., vessels suited to lake channels and harbors, should attempt to transact business between the upper lake ports and foreign ports they would find themselves hopelessly outclassed in carrying capacity and economy of transportation by the large vessels on the lakes, the great ocean vessels on the ocean and cheap barges on the canal, and it is practically certain that they could not compete with the latter combination, even handicapped as it would be by the necessity of transferring cargo. I am, therefore, compelled to believe that the project for a great ship canal from the Great Lakes to the sea, suited to ocean-going ships, is utterly impracticable and unworthy of the serious consideration of the State of New York.

"While the people of the upper lake region are naturally more or less indifferent as to whether their markets are reached via New York or Montreal, New York cannot afford to be indifferent. She should, therefore, give this matter her serious attention; and if her people see it as I do, they will fight the project of a ship canal via Lake Ontario with all their strength. And the most effective way for New York to fight it, and at the same time obtain enormous benefits to herself, is to build a barge canal upon which business can be done so cheaply that there would be no justification for expending large sums for a ship canal.

"One of the important truths in regard to transportation is that the cost of carrying freight depends upon the size of the freight carrier. The size of ships on the ocean and the lakes is constantly increasing, in order that the freight may be carried at a lower rate and a lower cost. In view of this circumstance, it is clear that, other things being equal, the larger the boats which the canal can accommodate, the cheaper will be the cost of transportation. But there are other truths regarding transportation that materially modify this view. First, in order to transact the business of freight carrying in the most economical manner, the vessel must be adapted to the waters on which it moves. One type of vessel is the most economical for ocean use, and another is not economical for use on the lakes, and neither of these could replace the other on its own waters without suffering great disadvantage. The ocean vessel is built with finer lines and deeper draft than the lake vessel; its machinery is different in many ways and its build must be heavier and stronger to stand the great strain of ocean storms. Again the ocean vessel undertakes long voyages and must be prepared to meet any emergency, while the voyages of the lake vessels are short and the ship is seldom more than a few hours distant from a friendly port.

"All points considered, we cannot fail to conclude that the correct solution of the canal problem lies in the construction of a barge canal through the State of New York, generally along the line of the Erie canal, of the largest size, consistant with the natural and artificial conditions of the route, and this, after careful consideration, has been determined to be that suitable for barges of 1,000 tons capacity.

"The State is now in a position similar to that of a manufacturer when he finds himself outclassed by a business rival who takes advantage of the latest inventions and business methods. He is then called upon to choose between dawdling slowly along the road to ruin, on the one hand, and making certain radical changes even at a great immediate sacrifice, on the other. As there can be no question in regard to which course such a manufacturer should pursue, so there can be no question what the State should do in the present instance.

APPEAL IN THE PEERLESS CASE.

Judge Lochren, of Minneapolis, has granted the application of the Lake Superior & Lake Michigan Transportation Co. for an appeal from the decision in their case against the tugs Mystic, Industry and Buffalo, and the case goes to the United States circuit court. The suit is due to the collision of the steamer Peerless with the barge Stewart, for which the three tugs libeled were deemed responsible. In his decision last month Judge Lochren held that the tugs were not at fault for the collision, but that the Peerless herself was responsible, and he dismissed the libel.

SEALED proposals for building dikes and for depositing stone on old dike in Ohio River near Mound City, Ill., will be received at U. S. Engineer office, Custom House, Cincinnati, O., until June 29. Information will be furnished on application to Wm. H. Bixby, Maj. Engrs.

LAKE FREIGHTS.

Grain—The rate from Chicago to Buffalo held steady all week at 2 cents on corn, equal to 80 cents on Escanaba ore. On Wednesday tonnage for 1½ million bushels of corn and 200,000 bushels of oats was placed. Duluth has been offering 3 cents on wheat, which shows an advance since last week of ¼ cent from the former, and ½ cent from the latter port, which is also equal to $1.12 on iron ore.

Iron ore—There is little or no change in the freight market and last week's quotations still rule, with the exception of a couple of small blocks of ore being taken by former lumber carriers at $1.10 and $1.20 from the head of the lakes and an effort to make the going rate $1.10. Shipments from all ports up to June 1st were 3,265,888 tons against 2,125,061 tons for the same period in 1899, a gain of 1,140,827 tons or 53 per cent. The season opened about two weeks earlier this year, but April shipments did not exceed 300,000 tons, so that the May movement is equal to the heaviest totals for any one month last season. Two Harbors takes the lead of all of the shipping ports, Escanaba is second and Duluth third.

Coal—Freights rule as last week from Ohio ports, steady, with brisk chartering. Chicago 70 cents, with some cargoes placed at 65 cents. Milwaukee 65 cents and Duluth 50 cents, with 5 to 10 cents differential to minor ports in favor of the vessels. Buffalo still quotes: Chicago, 75 cents; Waukegan, 85 cents; Milwaukee, 70 cents; Lake Linden, 50 cents; Green Bay, 70 cents; Duluth, 50 cents; Manitowoc, 70 cents; Ashland, 50 cents; Hancock, 50 cents, Sault, 50 cents, but a rumor has been current that the Lake Michigan and Superior rate had been shaded 10 cents during the week, but the old rate was soon restored, although shipments were light. About a half more coal has been shipped from Buffalo to date than at this time last season, the amount for May was 322,759 tons, and for the season, 470,088 tons, as against 324,368 tons for the same time a year ago.

Lumber—The lumber market is in practically the same condition it has been for several weeks past, and there is no indication of a change. Most of the lumber that is being moved is carried by contract vessels. The nominal figure is $2.25 from the head of the lakes, but, the vessel owners who have tonnage in the lumber trade have said that they would withdraw all of their boats from this business rather than take the rate offered, and it seems now as if they were willing to make their threat good. So far a good many of the larger carriers have gone into the ore trade, refusing to take lumber, and the shippers are getting short of boats. Any quantity of tonnage could be placed at $2.50 to $3. An effort is now being made to have the lumber shovers at the head of the lakes work for 50 cents per hour at loading instead of the new 60 cent rate. Shippers say they can send forward stuff if the men will accept the lower hourly rate of pay, otherwise, the trade must stagnate.

LAUNCH OF THE A. B. WOLVIN.

The steel steamer, A. B. Wolvin, built to the order of the American Steamship Co., Mr. Wolvin, general manager, in whose honor she has been named, was successfully launched from the Cleveland yards of the American Ship Building Co. on Saturday last.

The Wolvin is a sister ship to the steamer W. P. Palmer of the same line, which was launched at the same yards May 5. She is of Welland canal size, and will carry about 3,000 tons. Her principal hull dimensions are 256 feet over all, 242 feet keel, 42 feet beam and 26½ feet deep. She will have triple-expansion engines; cylinders 18½, 31½ and 51 inches with 36 inch stroke and Scotch type boilers. She will be ready for service in about forty days. The christening ceremony was gracefully performed by Mrs. H. G. Dalton.

NOTICE TO MARINERS.

LIGHT-HOUSE ESTABLISHMENT,
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,
DETROIT, MICH., June 13th, 1900

Detroit River, Michigan.—The Keeper of the Lake St. Clair Twenty Foot Dredged Channel Lights reports that some unknown craft had carried away the spar buoy, with lantern attached, which marked the wreck of the schooner Leader, about one mile off the North East end of Belle Isle. It will be replaced as soon as possible.

By order of the Light-House Board:

J. C. WILSON.
Commander, U. S. Navy, Inspector 11th Light-House Dist.

LAUNCH OF THE BRYN MAWR.

The large steel built schooner, or tow barge Bryn Mawr, built to the order of the Pittsburg Steamship Line (Carnegie Co.) by the Chicago Ship Building Co. was successfully launched from their yards on Tuesday, June 12. The general hull dimensions of the Bryn Mawr are 400 feet in length, 50 feet beam, and 27 feet depth of hold. She will carry 7,500 gross tons on a draft of 18 feet, and will go into the iron ore trade. The Cornell, a steamer of the same fleet, will be launched July 1. This craft measures 454 feet in length, 50 feet beam, and 29½ feet depth.

The new tow barge is one of the larger class of ore carriers and will be used by the Carnegies in bringing their ore down the lakes. This is one of the boats for which contracts were placed the latter part of last fall. She has been named after a city in Pennsylvania, at which one of those interested in the Carnegie steel works resides.

The christening was performed by Miss Elizabeth M. Utley. The launching party consisted of the officials of the American Ship Building Co., the Pittsburg Steamship Co. and guests. The Bryn Mawr has been built in record making time, it being onlyfour months since the keel was laid. She will go into the iron ore trade July 1.

LETTERS AT DETROIT MARINE POST OFFICE.

JUNE 13th, 1900.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Bunce, Geo., Str. Smith No. 2.
Burns, John H.
Bubeck, John.
Bassett, Chas., Str. Havana.
Bostwick, Murry.
Brown, Verney, Str. Venezuela.
Brown, James, Str. Manitou.
Dunn, Chas. A., Str. Juniata
Daniels, John, Str. Smith No. 2.
Drohan, James.
Doyle, Frank, Str. Grecian.
France, Chas. J., Str. Gettysburg.
Franklin, John, Str. Aurania
Gallagher, Wm. J., Str. Queen City.
Gable, Chas. E., Str. Geo. Stone
Horton, Amos K.
Hobbs, Mrs. Ella.
Harringer, Frank.
Joinson, Thomas, Str. Crescent City.
Johns, Louis.
Jamieson, James M.
Jones, Donnie.
Jackson, Adam.
Linden, Wm.
Laforge, Moses.
Larsen, Frank.
Lowry, Robert.
Monroe, Chas.
Mooney, John.
Marion, Barney, 2.
Mulville, Jas., 3, Rugee.
Merritt, Scott, Str. Australia
McLeod, A. J., Str. Elphicke
McPhail, James, Str. Oliver.
McArtney, William.
McIntyre, Neil.
McAuley, Geo.
Nottley, Chas.
Nichol, Oscar.
Nichols, Tyrus J.
Nutting, Ward, Str. Pridgeon
O'Connor, Pat.
Ostrander, David R.
Oherr, Thomas.
Reiley, Robt.
Schnitzler, Bl., Str. Wannoba
Treanore, Edward W.
Webber, Edd., Str. Admiral.
Westrick, E. N., Str. Italia.
Wright, Samuel, Str. Gettysburg.
Wrighton, W.
Yoager, Fred. C.

F. B. DICKERSON, P. M.

NOTES.

THE Falls Hollow Staybolt Co., Cuyahoga Falls, O., report a steady flow of orders for both hollow and solid staybolts from railway companies, ship builders, and locomotive and marine boiler manufacturers.

THE Foster Engineering Company, of Newark, N. J., have just made shipment of a large number of their reducing valves to the Maryland Steel Company, for use on the United States torpedo boat destroyers Truxton, Whipple and Wordon. The aggregate weight of these valves is over three tons.

LAKE ERIE—Canada—Port Colborne—Dredging operations—Caution.—A communication has been received from Mr. W. G. Thomson, Superintending Engineer, Welland canal, St. Catherines, Ontario, announcing that the work for improving Port Colborne harbor has commenced, and that a dredge is now at work at the entrance to the harbor, for which mariners should keep a lookout.

IT is very seldom that a wealthy vessel owner when about to die emulates in any respect the example of the late Captain R. R. Randall, who founded the Sailors' Snug Harbor on Staten Island, but we have to accord gratitude to the memory of Captain Thomas Wilson, a millionaire vessel owner who died recently in Cleveland, Ohio, and who in one respect has improved a little upon the snug harbor bequest. Captain Wilson has provided that one-half of his estate shall upon the death of his widow be used to establish a Home for Aged Couples, for admission to which preference shall in all cases be given to sailors of the Great Lakes and their wives. It is to be hoped that the estate will be administered so that Great Lake mariners in future generations shall have cause to arise and call him blessed.—Marine Journal, New York.

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COMMISSIONS IN THE BRITISH NAVAL RESERVE.

With the advent of two or three British tramp steamers on the lakes this season, under the auspices or ownership of Mr. Clergue, president of the Canadian Sault Ste. Marie power canal, a misconception has arisen, at least in one case, regarding the professional status of the master of one of these steamers.

Some of the lake dailies note that the master in question ranks as a lieutenant in the British navy, and is entitled to rank as such in H. B. M. Service. Well! he is not, though he may rank as a lieutenant R. N. R., the same as scores of other British merchant skippers.

This country is now intently awaiting legislation having in view the rehabilitation of the United States mercantile marine, furthermore, the utmost interest is evidenced in the proper organization of a national naval reserve, as opposed to, or rather instead of, a State naval militia.

Now, as it is desirous to enhance the service and advance the calling of those "who go down to the sea in ships," would it not be well for us to take a leaf out of the "John Bull" book, and add the distinction of naval reserve rank to the licensed officers of the U. S. Mercantile Marine, and thus, establish a commendable esprit de corps among the members of the fraternity, besides providing and proving superior technical ability and class qualifications to those already existing, and in this way, rising above, in a measure, the indifferent requirements requested or demanded by the average local inspector of steamboats granting licenses to lake pilots, masters and engineers?

While on this subject, we may say that the foregoing would not give our readers a full comprehension of the project we advance in the foregoing and desire to see established, without being accompanied by the requirements asked for under the British flag, though, in the first place, it may be stated, that no applicant will be appointed an officer of the Royal Naval Reserve unless he is a British subject. The age on first appointment of officers shall not exceed for lieutenants, 35 years; sub-lieutenants, 30 years; senior engineers, 45 years; engineers, 35 years; assistant engineers, 30 years; midshipmen, between 16 and 18 years, though exceptionally desirable candidates may be appointed up to the age of 19. The service and qualifications of officers who are entered direct from the mercantile marine must be as follows:

A lieutenant must have commanded a first-class British steamship of at least 1,500 tons, or a British sailing ship of 1,000 tons gross tonnage, for not less than one year; he must have served in command of a British ship within six months of making his application for a commission, and certify that he intends to follow the sea as his profession. A sub-lieutenant must have served as first mate of a first-class British steamship of at least 1,500 tons, or a British sailing ship of 1,000 tons gross tonnage, for not less than one year, and must possess an ordinary master's certificate of competency under the merchant shipping act; he must have served as master or first mate of a British ship within six months of making his application for a commission, and certify that he intends to follow the sea as his profession. Second and third mates of British ocean-going passenger steamers are eligible to become sub-lieutenant, provided that:—(a) They have served not less than six years at sea, excluding time as apprentice; (b) They bear a very good character; (c) They possess either an ordinary master's certificate or provisional certificate of competency as master. A senior engineer must hold a first-class engineer's certificate of competency under the merchant shipping act, 1894, and previous to making his application, have had not less than ten years' service at sea as an engineer, including three years' service as chief engineer of a British steamer of not less than 500 n. h. p., or one year's service as chief engineer of a British steamer of not less than 1,000 n. h. p. An engineer must hold a first-class engineer's certificate of competency under the merchant shipping act, 1894, and previous to making his application have had not less than seven year's service at sea as an engineer, including one year's service as chief engineer of a British steamer of 200 n. h. p., or two years' service as a senior watch keeper (i. e., the engineer who, during a watch, is in complete charge of the main engines or boilers) of a British steamer of not less than 1,000 n. h. p. An assistant engineer must hold a first or second-class engineer's certificate of competency under the merchant shipping act, 1894, and, previous to making his application, have served at sea on a British ship for not less than one year as a certificated engineer. A midshipman must, previous to appointment, have passed through a course of instruction on board one of the mercantile marine training ships, and have been nominated by the committee of the training ship to receive one of the appointments allowed annually to the ship. The case of a midshipman or apprentice in the merchant service who has not been so nominated will be considered for appointment as midshipman in the Royal Naval Reserve, provided he has served one year at sea on board a first-class British ship.

It is set forth in the regulations that officers holding commissions in the Naval Reserve who undertake any service or engagement that would prevent their fulfilling their engagement to serve when required if called out, will be considered to have vacated their position in the Reserve.

MARINE PATENTS.

Recent Patents issued June 7, 1900. Reported specially for the MARINE RECORD. Complete copies of patents furnished at the rate of ten cents each.

650,976. Life-preserver. H. C. Lavery, West Superior, Wis.

650,979. Ship's-bell clock. W. K. Menns, Chelsea, Mass., assignor to C. H. Pearson, Brookline, Mass.

650,986. Life-preserver. Emile Omeyer, New York, N. Y.

650,991. Dipper attachment for dredges. A. W. Robinson, Milwaukee, Wis.

651,004. Water-tight bulkhead-door. F. T. Bowles, New York, N. Y.

651,169. Life-preserver. J. C. F. Ruck, Wesselburen, Germany.

651,194. Paddle-wheel. E. A. Livens, Vancouver, Canada, assignor of one-third to D. J. McPhalen and John McMeekin, same place.

651,260. Ship's log. A. N. McGray, Boston, Mass.

LITERARY AND BOOK NOTICES.

Cassier's Magazine for June has excellent illustrated articles on "Trade Possibilities in South Africa," "Sixty Years in British Iron Works," "Practical Inventing," and other important topics. It is 25 cents per copy.

The Ashcroft Manufacturing Company of New York, publishes an interesting and well-bound illustrated catalogue of the numerous articles manufactured at their steam guage works, which have been in operation since 1851.

Mr. Dexter Marshall's article on "The River People," in the July Scribner's, describes the picturesque house-boat population of the Ohio river, and other inland waterways, which lives afloat year after year out of reach of the tax collectors. The illustrations are from drawings and photographs made especially for the magazine.

We are in receipt of an interesting circular from Theo. Lucas entitled "Safety of Ships," in which he gives the strength of power, the necessary freeboard, the initial stability, stability under inclination, and water-tight subdivisions by bulk-heads. Anyone desiring to peruse this interesting document can get one by applying to the author, 97 Water street, New York.

In a handsome volume of about 100 pages, each 9 x 11 in. printed on heavy calendered paper and copiously illustrated in a most superior style, the Bath Iron Works Co., have set before the public the extent and character of their facilities and the range of their finished products. The work presents at a few glances a complete history of the inception and development of the Bath Iron Works and the splendid achievements made. The process of shipbuilding is described, with photographs of all the various shops of the works and the general method of building a vessel is made plain to the reader, while he is led on to see how and why the Bath Iron Works are enabled to get such excellent results.

"Where Angels Fear to Tread," Morgan Robertson's new story, ought to interest lake people. It has the merit of being a new brand of sea yarn, and is more or less local. The chief characters are 16 lake sailors. They shipped aboard a coasting schooner, as they thought, at New York, for a little experience of salt water sailing. In reality they were on a deep-sea craft, bound round the Horn for Callao. On Lake Erie, if a captain behaves himself, he is as good as his crew. These fresh water sailors took their independent ideas to sea with them. During the outward run of five months, the time that was not taken up with fights between officers and crew was mostly occupied by the extraction of bullets, and in setting broken bones.

"The Steam Engine Indicator." By Cecil H. Peabody. New York, John Wiley & Sons. 153 pages 7x5¾ inches; 98 cuts. Price $1.50. There is nothing in this book which suggests that it is the work of a college professor. It is entirely and thoroughly practical. It might have been the work of any steam engineer, and any steam engineer of good common school education can with perfect freedom read every page of it. Information connected with the indicator in its various types, and all the various apparatus used in connection with it, seems to be collected, with copious information as to all the manipulations and computations involved. Typical diagrams of the various types of engines, pumps, air compressors, etc., are given and their special points sufficiently discussed. The book is a serviceable one for all who do not already know all about the steam indicator.

GAS FOR VESSEL PROPULSION.

Someone has broached the feasibility of driving large ships by gas engines, the gas to be generated on shipboard.

At first glance the scheme seems impracticable, but it appears that the Navy Department has been called upon to supply technical information for experiments being conducted by one of the largest manufacturing corporations in the country.

The purpose is to test the feasibility and advantage of propelling a ship through power derived from gas engines supplied by gas generated on the vessel herself. Thus the coal, instead of being consumed under the boilers to make steam, will be treated in retorts aboard the ship to drive out the gas, which would supply the engines.

The coke thus produced, it is asserted, would furnish all the fuel needed to reduce the coal. The purpose of experimenting is to ascertain whether the weight of gas-producing plant and gas consuming engines would be much less than the ordinary plant of steam boilers and engines and the saving of space sufficient to warrant the adoption of the new system. As stated before, it would seem that all these conversions would be uneconomical, says the Western Electrician, even if the plan be not impracticable in other respects. However, the economic possibilities of the gas engine are just beginning to be realized, and it may be that this form of motor is destined to play a part in ship propulsion. It would be interesting, also, to have some calculations as to the possibility of storing, under pressure, gas to be used in operating the main engines of ships.

HYDROGRAPHER, U. S. N. ON DUTY.

Immediately upon the adjournment of Congress on June 7, Capt. Todd, Chief of the Hydrographic Office of the Navy Department, was restored to duty and position. There is no doubt that Capt. Todd was not considered, in the Navy Department, as having committed any serious offense, and he was simply suspended to satisfy the demands of Mr. Cannon of the House Committee on Appropriations. This official, for some unknown reason, has antagonized the Hydrographic Office since the beginning of the past session of this Congress, and was extremely harsh in his dealings with the chief of the office. It may be stated that Secretary Long before he left Washington for Annapolis, left orders to the effect that Captain Todd should be restored to duty as soon as Congress adjourned. This was done by the Acting Secretary. Rear-Admiral Bradford, Chief of the Bureau of Equipment of the Navy Department, who is Captain Todd's immediate superior, does not censure that officer for his actions in defending his department. It was done from the best of motives and was not intended to influence legislation except to get the friends of the Hydrographic Office together to fight the attempted cut in the appropriation.

BIDS in triplicate for improving Galveston ship channel and Buffalo bayou, Texas, by dredging, etc., will be received until June 30, at U. S. Engineer office, Galveston, Tex., and then publicly opened. For information apply to C. S. Riche, Capt. Engrs.

REPORTED BY THE LOOKOUT.

The Hamilton Steamboat Company's steamer Mazeppa has been sold to John McLachlan, Owen Sound, Ont.

T. J. Craig, Kingston, Ont., has been appointed freight agent at Toronto for the Richelieu & Ontario Navigation Co., vice the late Peter McIntyre. He at one time was captain of the steamer Passport.

"Want a dime, do you," said the kind old lady; "I suppose you'd get drunk with it if I gave it to you." "No, lady," replied the sarcastic beggar. "I wuz t'inkin o' buy a steam yacht wid it. However, if dat seems lik extravagance ter you, I might compromise on a couple of schooners."—Philadelphia North American.

"Whistling" George Brock of the Charlemagne Tower, Jr., always announces his coming by a continued "toot" be it day or night, and Sunday, people who were still wrapt in slumber were rudely awakened by the noise made. This practice of prolonged whistling is fast becoming a public nuisance and citizens have entered a protest.—Ex.

At a trial of the Raddatz submarine boat in the bay at Milwaukee, June 4, it made a trip of a mile under water and return. The boat is now propelled by storage batteries instead of by chemically made electricity, as at first, and a number of other improvements have been made. The ballast used is compressed air, which can be shifted from one part of the boat to another.

Capt. C. P. Theyer of the tug Arctic of Manitowoc has notified the hydrographic office that the schooner Silver Lake, recently run down and cut in two by the car ferry Pere Marquette, is a dangerous menace to navigation. The derelict was floating eight miles east of Sheboygan when last sighted, and was directly in the track of vessels up the west shore. The cargo of maple slabs which the Silver Lake carried makes her a dangerous bulk for vessels to strike.

A telegram received at Kingston, Ont., on Saturday last, stated that the ocean steamer Scottish King, which had been ashore on the coast for a year, had been released. The work was done under the superintendency of Mr. Leslie, of the Collins Bay Rafting and Forwarding Co. His men were taken to the boat last August. The steamer is a large craft, fitted for the passenger business, and cost $250,000. The wreckers will get two-thirds of her present value for their salvage.

The origin of the term "son of a sea cook" to-day is thus explained: It comes from Leonard Swett, who at one time was candidate for Congress from Illinois. In speaking of a well known lawyer of that state, he remarked: "He is a son of a sea cook." Mr. Swett turned abruptly about and said: "That expression is not correct. You mean the son of a sekawk, which is the perversion of the Indian name segonk, which means a skunk, and is usually pronounced 'sekawk.' Few people ever use this term correctly or comprehend its meaning."

"Sir said a lad coming down to one of the wharfs in Boston, and addressing a well-known merchant, "have you any berth on your ship? I want to earn something."

"What can you do?" asked the gentlemen.

"I can try my best to do whatever I am put to do," answered the boy.

"What have you done?"

"I have sawed and split all mother's wood for nigh on two years.

"What have you not done?" asked the gentlemen, who was queer sort of questioner.

Well, sir," answered the boy, after a moment's pause, "I have not whispered in school once for a whole year."

"That's enough," said the gentlemen, "you may ship aboard this vessel; and I hope to see you the master of her some day. A boy who can master a woodpile and bridle his tongue must be made out of good stuff."—Selected.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD).

Collision—Ferryboat and Tug—Evidence Considered.—Evidence held to place the fault for a collision between a ferryboat passing out of her slip in North river and the tow of a tug passing down the river upon the tug, for coming down so near the piers that the vessels could not see each other until immediately before the collision, on account of the obstruction of the view by a shed on one of the piers. The Chicago, 101 Fed. Rep. (U. S.) 143.

Ship's Liability.—A ship is answerable for any negligence that causes damage to a cargo after it has been placed on board under a contract of affreightment between the shipper and a charterer, and a suit to enforce such liability may be maintained by the shipper directly against the vessel; but she cannot be held liable for damage resulting from delay due to the condition of the weather, and not to any negligence in her navigation. The Hiram, 101 Fed. Rep. (U. S.) 138.

Shipping—Liability of Ship for Injury to Stevedore—Negligence.—A ship cannot be held liable for an injury to a stevedore resulting from the breaking of a rope, constituting part of the tackle furnished by the ship for the use of the stevedores, where the tackle and rope were in good condition when furnished, and the breaking of the rope was caused by a piece of ratline becoming wound around it, and preventing its passing through a fall, and the evidence fails to show, either directly or presumptively, that this occurred through any negligence or fault of the ship. The Menominee, 101 Fed. Rep. (U. S.) 136.

Construction of Charter—A vessel was described in a charter as a water-ballast ship, and was so accepted without objection by the charterer, who contracted to carry in her a cargo of cattle. The shipper desired to load a number of the cattle on the deck, which was refused by the master, on the ground that it would be unsafe, with the ballast the ship carried. Held, that he could not be required to provide additional ballast, nor could the ship be held liable for his refusal to load the cattle as required by the shipper; it being shown that his objections were well founded, and there being no provision of the charter specifically requiring the vessel to take a deck cargo, or to carry any specific number of cattle. The Hiram, 101 Fed. Rep. (U. S.) 138.

Collision—Suit for Damages—Failure of Evidence to Show Fault.—The steamship Marshall, having, with her load, a displacement of about 1,234 tons, was passing down the St. Clair river, when she was met by the Centurion, having a displacement of about 7,500 tons, which was passing up. When the stems of the two vessels were about opposite, and they were apparently passing in safety, the Marshall suddenly sheered, and her stem struck the Centurion on the port side, near the stern. The channel was from 1,200 to 1,500 feet wide, and the water from 4 to 5 fathoms deep, at the place of collision; and the Marshall was as near the American shore as it was deemed safe to go. Each vessel was moving at a speed of 7 or 8 miles an hour. There was no proof of the mismanagement of either vessel, which could have caused the collision. Held, that while it was possible that the suction of the larger vessel caused the sheer of the smaller, it was not clear that such was the fact, or that such effect was reasonably to be apprehended, so as to render the Centurion negligent in passing so close to the Marshall, and that the latter could not be charged with fault, in view of the uncontradicted testimony of proper management, but that the case was one in which the evidence failed to establish the negligence charged by either party against the other, or to show the cause of the accident. The Centurion, 100 Fed. Rep. (U. S.) 663.

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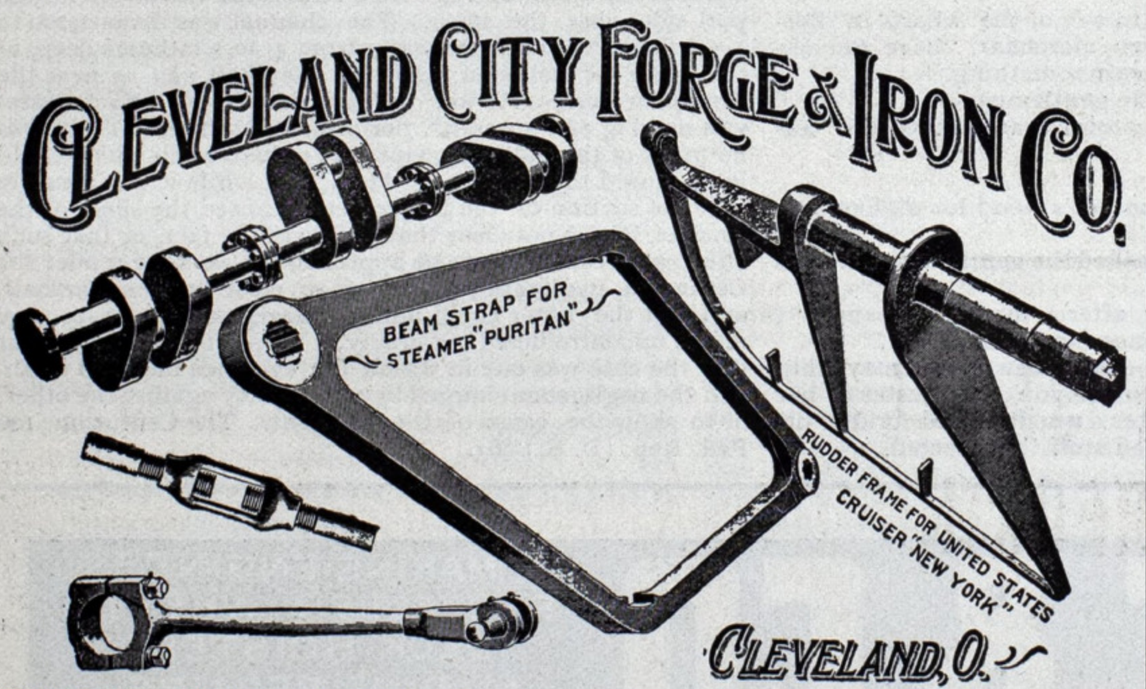

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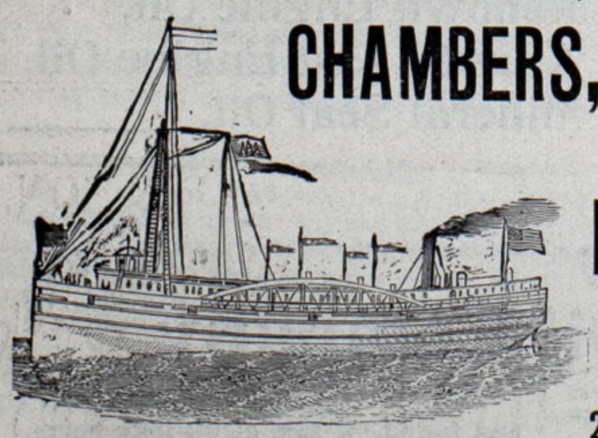

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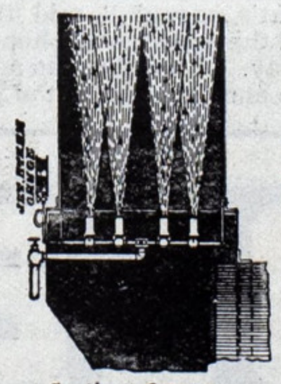
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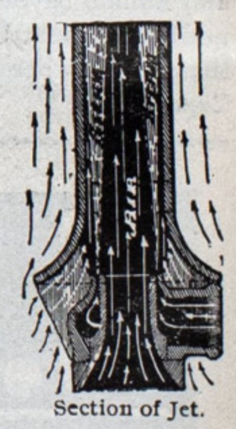
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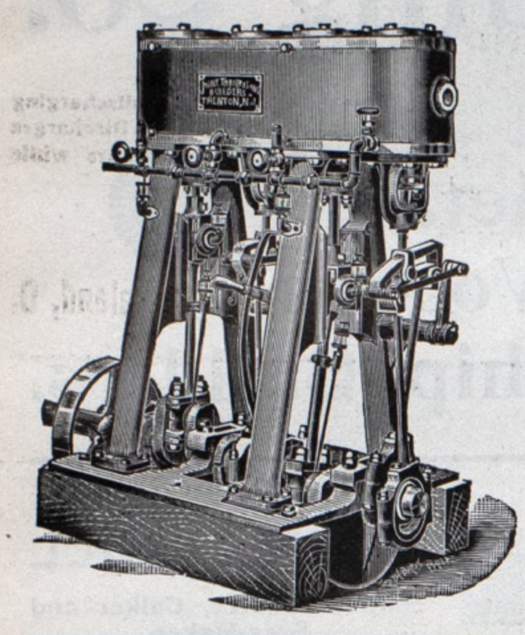

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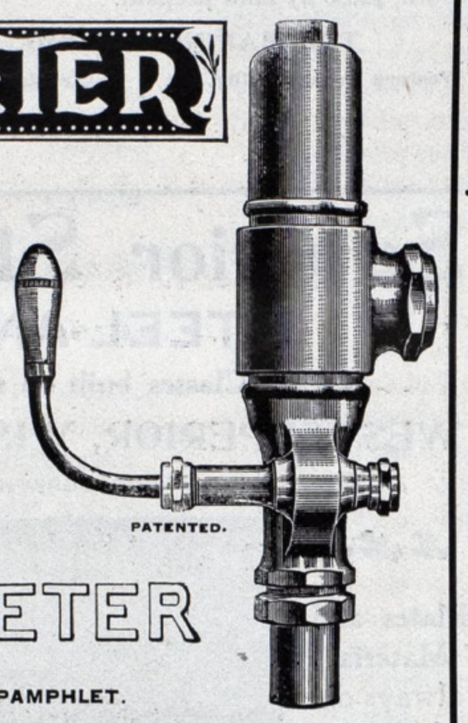

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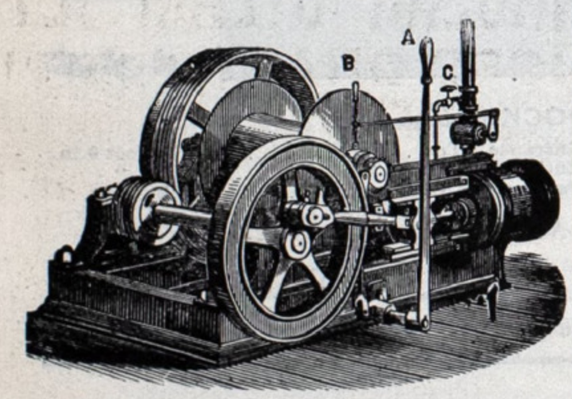

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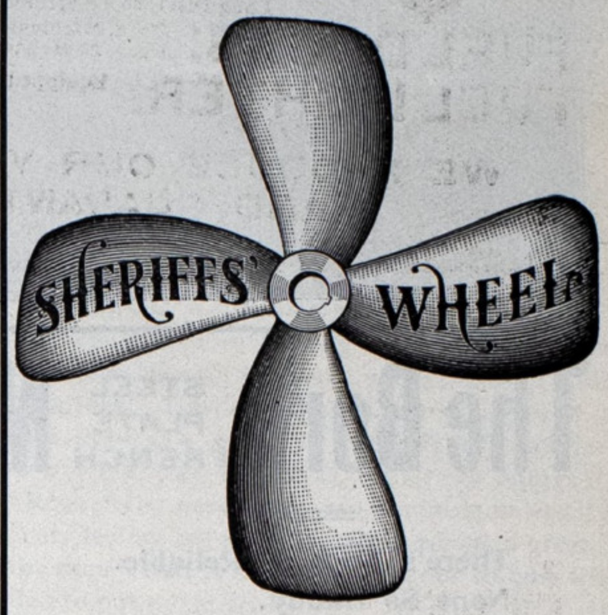

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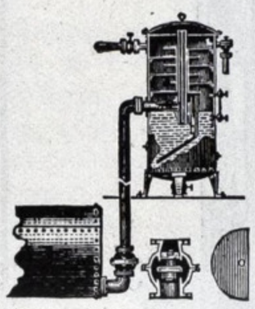

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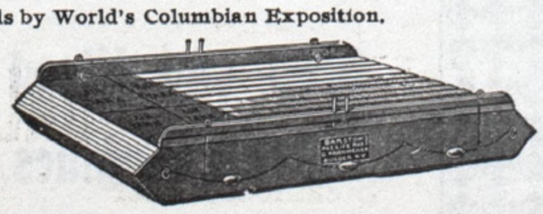

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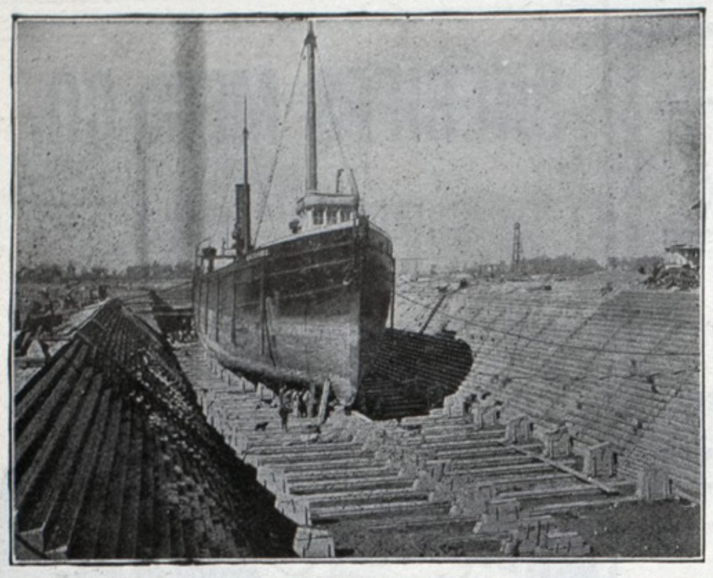

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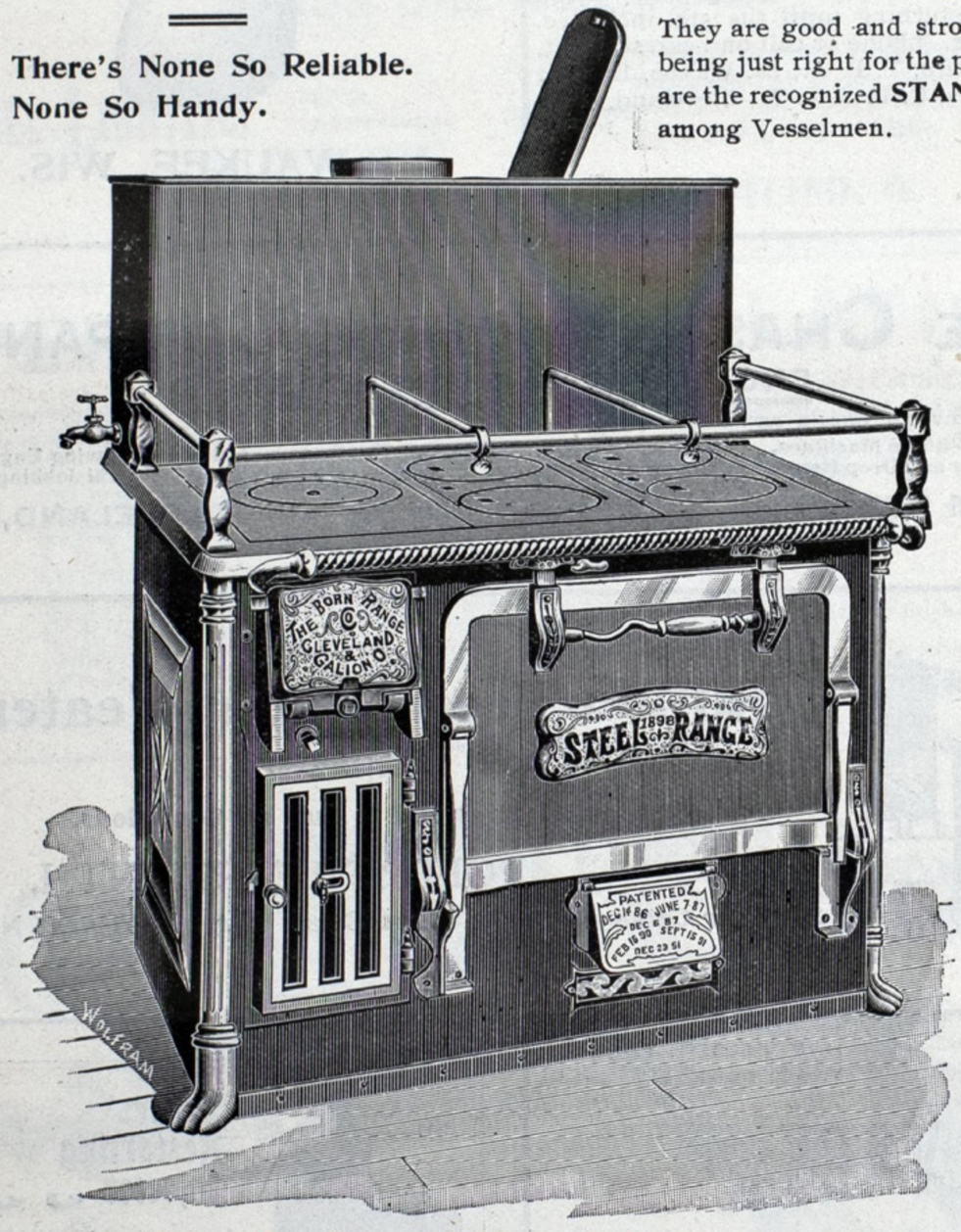

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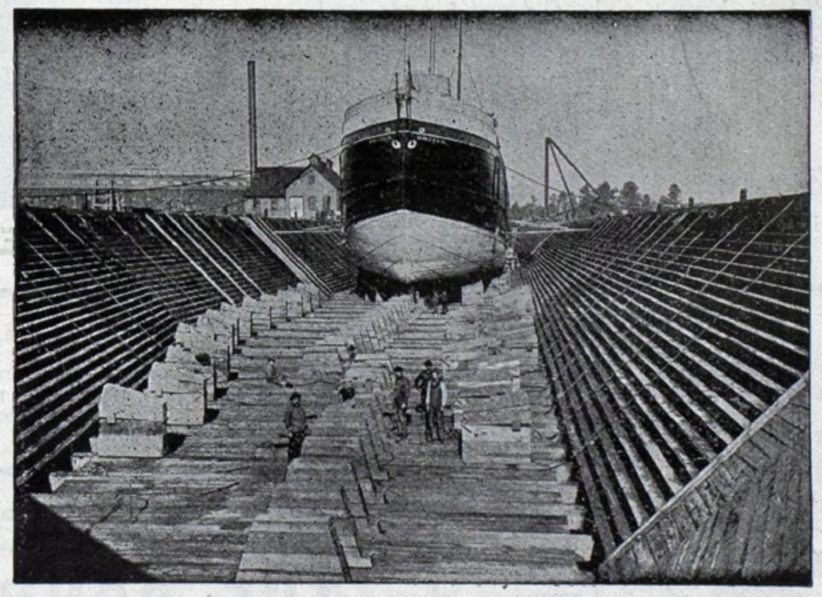

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